PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

LOWER PROVINCES OF BENGAL

FOR THE YEAR

1889-90.

BY

A. L. HOME,

Conservator of Forests, Bengal.

Calcutta:

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FROM A. L. HOME, ESQ.,

Conservator of Forests, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT (FORESTS).

Dated { *Darjeeling, the 31st July* / *Calcutta, the 5th August* } 1890.

SIR,

I HAVE the honour to forward herewith the Annual Report of this Department for 1889-90 in print.

2. The figures of receipts and expenditure adopted in the Report and in the forms attached were received from the Comptroller and Auditor-General (Forests) originally on 10th June 1890, with the intimation that they were subject to such alterations as may be found necessary on verification of the actual receipts and charges for the year with those in the books of the Accountant-General, Bengal. I am not, up to 16th July 1890 (date of forwarding the manuscript report, &c., to the Press), informed of the correctness of the figures for final adoption; but on the 14th instant I received from the Comptroller and Auditor-General (Forests) supplementary annual Forms 58 and 59, showing the adjustment of survey charges incurred by the Superintendent of Forest Surveys in the Singbhoom Forest Subdivision during the year, and a letter regarding other corrections in classification. I have amended the statements received on 10th June 1890 accordingly. Further amendments will probably be made later, on account of Imperial survey charges in the Julpigori Forest Division and in the Angul Subdivision, Orissa Forest Division. Meantime in a letter received on the 28th instant, I am authorized to adopt the figures already received, as amended, for the purpose of the Annual Report.

I have the honour to be,

SIR,

Your most obedient servant,

A. L. HOME,

Conservator of Forests, Bengal.

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PROGRESS REPORT

OF

FOREST ADMINISTRATION IN BENGAL

For the year 1889-90

BY

A. L. HOME,

Conservator of Forests.

INTRODUCTION.

THE main change in the working of the Department during the year has been the system introduced in the Darjeeling Division of marking all trees for felling by Gazetted officers, instead of, as formerly, leaving this work to a considerable extent in the hands of Range officers: this is an improvement that cannot fail to benefit the forests and to render the maintenance of a sustained yield of timber equal to the demands of the future possible.

2. Financially, the year has been the most successful one since the formation of the Department. The Julpigori Division has been worked at a profit, and of the revenue divisions, the only ones that show a deficit are Chota Nagpore and Orissa. The results in the former are better than in the previous year, and will undoubtedly continue to improve, as the forest areas outside the reserves become, as they are doing annually, more and more worked out: with little or no value demanded by their owners for the material removed, and an inefficient check on removals, consumers naturally continue to obtain such timber, &c., as they can from these private forests. In the Orissa Division continued concessions render an improvement in receipts impossible. The sustained improvement in the revenue derived from the Sunderbuns forests is extremely satisfactory.

CHAPTER I.—AREA AND BOUNDARIES.

1.—AREA OF RESERVED FORESTS.

3. The area of reserved forests for the year in acres stands thus:-

On 1st April 1889.	Added.	Excluded.	On 31st March 1890.
3,192,535	132,480	6	3,325,009

In the Teesta subdivision 6 acres of the Pugo block, Noam forest, Chel Range, were excluded with effect from 1st April 1889: this land was made over to the Civil authorities to be leased as an addition to a tea-planter's building location. The addition of 132,480 acres is in the Singbhoom subdivision, and comprises the Porahat (Girga), Birda, Songra, Kundrugutu, and Bera forests, which, having been originally notified under section 4 of the Indian Forest Act in 1880 and 1882, are now declared reserves under section 19 with effect from 1st March 1890.

In the Darjeeling subdivision an area aggregating 19 acres 32 poles in the Balasan and Permaigiri blocks of the Goompahar forest was made over to the Civil authorities under an executive order of Government for the purpose of establishing a police outpost, pound, bazaar, and camping ground at Sukiapokri. The land was entered on for this purpose early in the year, but the date from which the transfer was actually effected has not been reported.

4. The forests in the Darjeeling, Teesta, and Kurseong subdivisions that were originally declared to be reserved under section 34 of the Act in the notification dated 23rd January 1879, together with certain areas since added to them and declared reserved forests under section 19, which have been included in the notifications for convenience in describing boundaries, have all been re-gazetted as proposed reserves under section 4 in a notification dated 4th February 1890, Government having declared that it was not satisfied from the information now obtainable that proper enquiries were made and recorded as to rights, &c., at or before the time the notification of 23rd January 1879 was published. It is not considered necessary to exclude these forests from the form No. 49 attached to this report, in which their present state is indicated by notes in the remarks column. Since the close of the year under report similar notifications under section 4 have been submitted to Government regarding all the other section 34 reserved forests in this circle for approval and publication in the Gazette.

5. The following are the proposed additional forest areas, exclusive of those in the Darjeeling Division, noticed above, which are still under the management of the Department as reserved forests owing to their having been declared reserves under section 34, that remain under settlement at the close of the year :—

Division.	Forest.	Approximate area.	Date of notification under section 4.
Darjeeling—		Acres.	
Darjeeling subdivision ...	Addition to Sepoydhura block ...	7	6th May 1889 (in supersession of the notification of 14th May 1888).
Chota Nagpore—			
Hazaribagh subdivision ...	Khoorchoota	7,000	12th May 1885.
Chittagong division ...	Ramghur-Sitakund	85,000	22nd October 1888.
Orissa—			
Khorda subdivision ...	Rajin	14,500	9th April 1889.
	Total ...	106,597	

6. The boundaries that still remain in dispute in the Darjeeling Division will be settled by the Forest Settlement Officer appointed to deal with the forests that were reserved under section 34 of the Act.

No information is recorded by the Singbhoom Subdivisional Officer as to the disputed boundaries with Native States in that subdivision, referred to in paragraph 5 of last year's report. In the Angul subdivision portions of the boundaries marching with the Tributary States of Daspala, Nursingpur, Hindole, Athmalik and Radhakole, aggregating over 123 miles in length, are still reported to be unsettled.

No mention is made in the subdivisional report regarding compensation paid through the Deputy Commissioner of Singbhoom, but from the monthly accounts it appears that payments were made, aggregating Rs. 240, as follows :— Porahat Range—Birda forest, Rs. 25-8 ; Songra forest, Rs. 8-8 ; Kundrugutu forest, Rs. 38 8 ; Bera forest, Rs. 167-8. There still remain Rs. 635-2-9 in the hands of the Deputy Commissioner for payment to ryots out of the Rs. 875-2-9 made over to him in accordance with the Government orders referred to in paragraph 6 of last year's report.

2.—Area of Protected and Unclassed State Forests and Waste Lands.

7. The area of protected forests has been reduced by 16,172 acres in the Sunderbuns Division, owing to lands transferred to the Civil authorities to be leased for cultivation, and stands at 1,433,090 acres at the close of the year.

There is no change shown in form No. 49B, the area of Unclassed State forests and waste lands in the Chittagong Division remaining at 2,581,420

acres. The area of this class of forest that has been made over to the Department for management and realization of revenue in Singbhoom is not known, and has not been estimated.

3.—Demarcation.

8. The record of boundaries and boundary marks in reserved forests, as given in Appendix A, in which the lengths of external and internal lines are given separately, shows the total length of demarcated lines to be 2,274 miles with 32,569 posts or pillars, while there are 1,345·9 miles of natural, undemarcated boundaries.

9. The work of the year is summarized below, and the total expenditure, Rs. 5,465, debited against AVIII*a*, "Demarcation," is here accounted for, with the exception of Re. 1 expended on clearing a camping ground in Darjeeling subdivision, wrongly debited to this sub-head—

Division or Sub-division.	New Demarcation.			Clearing and maintaining Boundaries and Boundary Marks.				
				Charged against AVIII*a*, Demarcation.				
	Length of boundaries.	Marks erected.	Cost against AVIII*a*, Demarcation.	Length of boundaries cleared.	Number of marks renewed.	Cost.	Charged against AVIII*a*, "Roads and bridges," and AVIII*e*, "Protection from fire."	Length of boundaries demarcated and cleared during 1889-90.
	Miles.	No.	Rs.	Miles.	No.	Rs.	Miles.	Miles.
Darjeeling subdivision .	0·5	6	4	138 0	304	575		138·5
Teesta ditto ..	.	17	8	..	319	86	195·7	195·7
Kurseong ditto ...	1·2	6	7	..	117	20	116·5	117·7
Julpigori ditto ...	...	...	...	101·5	216	1,052	...	101·5
Buxa ditto ...	..	...	..	109 7	592	1,121	..	109 7
Palamow ditto ...	..	...	...	7·6	18	47	159·2	166 8
Hazaribagh ditto	8 9	124	44	19·0	94	52	34 4	62·3
Singbhoom ditto ...	...	...	...	642·3	1,790*	1,607	37·3	679 6
Sunderbuns Division	-	...		1·2	43	10	...	1·2
Chittagong ditto .	.	16	†	56·0	505	647	..	56·0
Angul subdivision	...	...	...	..	516	76	218 0	218 0
Khorda ditto ..	...	27	13	...	132	55	240·2	240·2
Total .	10 6	196	76	1,075·3	4,646	5,388	1,001·3	2,087·2

* Figures incomplete : do not include information regarding Porahat range.
† Information wanting.

10. The average cost of new demarcation, including the erection of 196 pillars or posts, is Rs. 7-3 per mile, against Rs. 16 in the previous year. This is due to the chief work being in Chota Nagpore, where labour is cheap. The average cost of maintenance has been further reduced from Rs. 6-2 to Rs. 5 per mile, which includes the repairs to 4,646 boundary marks. The improvement in cost is general in all divisions.

CHAPTER II.—SURVEYS, WORKING PLANS AND ANNUAL PLANS OF OPERATIONS.

1.—Surveys.

11. In the *Kurseong subdivision* the previous surveys of the boundaries of the Dhobijhora forest and of the Majua block, Babukhola forest, were checked, and in some points found to be incorrect. The Manjua and Koohein bhuta and cardamom field surveys were plotted and their areas ascertained. Total cost Rs. 13.

In the *Julpigori Division* a party of the Survey of India Department was employed on the survey of the reserved forests. The work done during the season has not been formally reported, but it is understood that good progress has been made in the survey of outer boundaries, and that in some cases interior details have also been taken in hand.

In the *Palamow subdivision* the cart road between Kechkee and Betlah depôts was surveyed at a cost of Rs. 6.

In the *Singbhoom subdivision* it is reported that no field work was done by the Imperial Forest Survey party during the year. This Department has,

however, been debited with Rs. 1,303 on account of Imperial Forest charges, presumably on account of cost of mapping. Rupees 3 were also expended locally on clearing boundaries of sample plots.

In the *Chittagong Division* the cost of laying down the boundary line of the proposed Ramghur-Sitakund forest reserve, Rs. 190, was adjusted with the Civil Department. This line has been rejected, and another is being fixed on by the new Forest Settlement Officer. The Kaptai and Chitmaram stations of the Sitapahar Range were surveyed by the Divisional Officer at a cost of Rs 2.

In the *Orissa Division* Rs. 2 were expended on check surveys of portions of the reserved forests in Angul, and it is reported that the party of the Revenue Survey employed in that subdivision has completed the detailed survey of the reserves, but maps of the same have not yet been issued.

2.—Working Plans and Annual Plans of operations.

12. In appendix B is given such information as has been received regarding contents of trees felled by permit-holders actually measured; the only officers who have taken any trouble in this matter are Mr. Haines, Kurseong subdivision, and Mr. Green, Buxa subdivision, and it is to be regretted that the officers in charge of the other divisions and subdivisions quoted in the appendix from whom information on this subject ought to have been forthcoming have failed to collect and record any measurements whatever. The Darjeeling subdivisional officer has given a list of 5,122 trees that were marked for felling after selection by gazetted officers on permits applied for, but no measurements are recorded.

13. The *Working Plans Division* was practically again in abeyance for the greater part of the year, as Mr. F. B. Manson, Deputy Conservator of Forests, was not relieved of the charge of the Teesta subdivision till December 1889, though he held charge of the Working Plans Division from May, when he relieved Mr. Fowler. The lines on which the working plan of the Darjeeling forests is to be drawn up are still under the consideration of the Inspector-General of Forests to the Government of India; meantime considerable progress has been made in the collection of information and data regarding the past working and future capabilities of these forests, and much has been done in laying down and plotting the position of existing roads, paths and compartment lines.

14. *Darjeeling subdivision.*—The year under report completes the period for which Dr. Schlich prescribed the system of working the Darjeeling and Jalapahar supply working circles in his memorandum of 21st April 1882. The results for the eight years are as follows in cubic feet solid wood:—

Year of working.	Darjeeling Supply Working Circle.			Jalapahar Supply Working Circle.		
	Provision of working plan.	Result of operation.	Excess (+) or less (−) extracted.	Provision of working plan.	Result of operations.	Excess (+) or less (−) extracted.
1882-83	325,000 per annum.	307,924	−17,076	175,000 per annum.	165,043	−9,957
1883-84		310,831	−14,169		150,825	−24,175
1884-85		440,604	+115,604		155,986	−19,014
1885-86		350,582	+25,582		70,855	−104,145
1886-87		387,003	+62,003		115,983	−59,017
1887-88		303,698	−21,302		105,753	−69,247
1888-89		407,254	+82,254		100,098	−74,902
1889-90		351,857	+26,857		136,161	−38,839
Total ...	2,600,000	2,859,753	+259,753	1,400,000	1,009,704	−390,296

which show that his estimates of the demand on these forests were remarkably accurate, they having been in fact within 3 per cent. of the actuals for the whole period.

15. *Kurseong subdivision.*—The Sukna Working Plan has only been partially carried out as regards fellings, owing to want of demand for produce available; under its provisions mature trees should be felled, for which there is ample demand; but as their number has been over-calculated in the plan, it is impossible for sylvicultural reasons to allow them to be removed. Damaged

trees are available in considerable numbers that are not as a rule fit for scantlings, which it would be advantageous to remove, but purchasers prefer to go further for sound trees.

The provisions of the Bamonpokri Working Plan have been carried out as far as thinnings are concerned and works of improvement. The principal fellings, though marked, were not felled, as there was no offer made for the out-turn on the call for tenders being issued.

CHAPTER III.—PROTECTION AND IMPROVEMENT.

1.—Establishments.

16. Mr. A. L. Home, Conservator of Forests, was in charge of the Department throughout the year, with the exception of the period 30th December 1889 to 29th March 1890 when he was on privilege leave and Mr. H. H. Davis, Deputy Conservator, acted in his place. Mr. Home continued to officiate in the second grade of Conservators.

17. Mr. W. H. Lovegrove was appointed from Cooper's Hill College to be an Assistant Conservator of Forests, in the vacancy caused by the retirement from the service of Mr. A. R. Grant. Among the Deputy Conservators, Mr. H. H. Davis was absent on three months' privilege leave during the year, and Mr. G. A. Richardson proceeded on similar leave in February 1890; Mr. E. G. Chester continued in charge of the forests in the Andamans; Mr. M. S. Fowler proceeded on furlough in May 1889 for 15 months; Messrs. H. D. D. French and H. H. Haines, Assistant Conservators, were each absent on one month's examination leave.

18. Of the Sub-Assistant Conservators, Mr. J. C. Mendes was absent on deputation in the Central Provinces till the close of the year, when he rejoined; Mr. E. J. N. James obtained the Ranger's certificate at the Dehra Dun Forest School and was confirmed in his appointment.

It is with extreme regret that the Conservator has had to report the death of Mr. E. E. Wylly, Sub-Assistant Conservator, which occurred on the 5th June 1890; it will be extremely difficult to adequately replace his services in the Sunderbuns Division, where he performed his duties with tact, energy and indefatigable zeal.

19. Forester Brindabon Chunder Ghosal obtained a Ranger's certificate at the Forest School, Dehra Dun, and two Foresters, Guru Das Chatterjee and Jadu Nath Roy, were sent to the school during the year; the latter resigned his appointment after joining at the school. The class of men who were appointed to the department during the year under report was unsatisfactory; not one of them is fitted to undergo the school course, and consequently none can be sent in 1890.

20. In the Darjeeling subdivision Mirza Surferaz Begg, Forest Ranger, in charge of the station fuel depôts, was, after consultation with the Civil authorities, prosecuted for criminal breach of trust with regard to 3,550 bags of charcoal found short in stock and Rs. 462-1-9 short in cash, revenue money. The case was dismissed by the Assistant Commissioner; this sentence was appealed against to the High Court and finally dismissed, the Court holding that the prosecution had failed to prove the criminality of the accused's action. The Forest Ranger remains under suspension at the close of the year, and his case is before Government. Officiating Forester Aughor Chunder Banerjee's services were dispensed with, for neglect of duty and insubordination.

In the Chittagong Division officiating forester Sasti Churn Sen (1), referred to in paragraph 21 of last year's report, continued to evade service of the warrant for his arrest throughout the year; on the charges there stated which were brought against him by the department, he was dismissed the service in October 1889 with effect from 4th November 1888, on which date he absconded.

The Deputy Commissioner, Chittagong Hill Tracts, instituted a case on information obtained by the police, when investigating the above charges,

against Sasti Churn Sen (1) and Asdan Rai, Umesh Sen and Safic Meah, forest guards, under sections 409, 108 and 109 of the Indian Penal Code; the three former have evaded arrest during the year, and Safic Meah was tried, found guilty and sentenced to two years' rigorous imprisonment and a fine of Rs. 200, which sentence has been upheld on appeal. Sasti Churn Sen (1) and forest guard Asdan Rai were also implicated in a case of theft of timber and receiving stolen property tried during the year, which resulted in two Chakmas being sentenced to three months' rigorous imprisonment by the Deputy Commissioner, confirmed on appeal.

The services of officiating foresters Sasti Churn Sen (2) and Mohendra Kumar Biswas of the Chittagong Division, and Suk Lal Singh of the Orissa Division, were finally dispensed with under circumstances that have been before Government, their appeals for reinstatement having been rejected.

21. There were two cases of theft of Government money and revenue during the year, one of which the Conservator regrets to say resulted in the murder of three forest guards. In the Darjeeling subdivision Rs. 74-11 unremitted revenue and Rs. 12-10-1 cash balance were stolen from the safe of the Tukdah Range on 26th October 1889, of which forester Brindabun Chunder Ghosal was in charge; none of the money has been recovered, nor has any clue to the thieves been obtained. In the Chittagong Division Rs. 2,105-9-6 unremitted revenue and Rs. 94-11-7 cash balance were stolen from the Kassalong Range on the night of the 13th February 1890; on this occasion three forest guards, Auperna Churn Kanungoe, Guru Das Sing and Romesh Chundra Chowdhury, were murdered by a gang of Chakmas; nearly all the men implicated have been arrested since the close of the year under report, but the ringleader and instigator of this treble murder and robbery, one Jarmajoy Dewan, is still at large.

2.—General Protection and Breaches of the Forest Law.

22. The Government notifications under section 25 (*i*) of the Indian Forest Act declared the reserved forests in the Kurseong and Teesta subdivisions of the Darjeeling Forest Division, in the Julpigori Forest Division and in the Palamow and Hazaribagh subdivisions of the Chota Nagpore Forest Division, to be closed against hunting, shooting and fishing from 15th December 1889 to 1st June 1890. An application for a similar prohibition as regards the reserved forests of the Orissa Forest Division was negatived on the expression of opinion by the Commissioner and Superintendent of the Tributary Mehals that it would be inadvisable to do so, though the draft notification submitted provides that permission may be granted to individuals on application either by Government or by the Conservator, on the ground that the aborigines and others who partially obtain support from snaring animals and fishing would have difficulty in obtaining the specified written permission.

23. There was a further decrease in the number of cases taken into court during the year from 254 to 120; there were three cases pending at the commencement and nine at the close of the year, and of the 114 cases decided by the courts, 91 resulted in convictions, or 79·8 per cent. of the cases disposed of, the previous year's results having been 79·6 per cent. of convictions.

The decrease is in the Darjeeling, Sunderbuns and Orissa Divisions; in the two former this is due to the previous year's experience in the delay that occurred in the hearing of cases by the courts having led the divisional officers to compound offences when possible rather than allow their ranges and revenue stations to be without officers, and in the latter owing to continued relaxation of forest rules owing to scarcity. There has been a large increase in the number of cases compounded (from 1,450 to 2,524); these were chiefly in the Darjeeling and Sunderbuns Divisions; in the former bringing the total number of offences detected up to the previous year's figures, and in the latter increasing them by nearly 100 per cent.—a result the Conservator can only ascribe to improved supervision and more frequent and searching inspections by the gazetted officers. It is extremely satisfactory to record that in one case only was an appeal made to the Conservator against the assessments of damage by divisional and subdivisional officers in compounding cases under section 67 of the Indian Forest Act.

24. The following statement summarizes the cases taken into court that are recorded in form No. 50, and shows the number of cases compounded and the amount of compensation accepted in each division and subdivision:—

Division or Subdivision.	Pending, 1st April 1889.		Taken into court, 1889-90.		Total in court.		Convictions.		Acquitted or discharged.		Pending, 31st March 1890.		Cases compounded.	
	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Number.	Amount.
														Rs. A. P.
Darjeeling subdivision	...	...	39	93	39	93	32	40	5	51	2	2	211	908 2 0
Teesta ditto	...	...	2	5	2	5	2	5	...	...	...	...	72	483 12 0
Kurseong ditto	...	...	4	23	4	23	3	18	1	5	...	...	57	312 10 3
Julpigori ditto	...	...	7	9	7	9	3	3	3	5	1	1	31	495 8 0
Buxa ditto	...	...	2	8	2	8	1	2	...	1	1	5	7	70 0 0
Palamow ditto	...	...	5	8	5	8	5	7	...	1	...	...	19	47 8 0
Hazaribagh ditto	...	...	...	...	...	...	...	...	...	...	...	...	6	63 6 0
Singbhoom ditto reserves	...	...	3	5	3	5	2	4	1	1	...	...	8	26 15 6
Ditto waste lands ...	...	...	1	1	1	1	1	1	...	...	...	...	...	...
Sunderbuns division reserves...	...	...	13	35	13	35	8	13	4	18	1	4	1,473	13,361 6 11
Ditto protected forests...	...	...	4	6	4	6	1	1	3	5	...	...	582	4,727 15 3
Chittagong division	2	5	7	18	9	23	4	7	4	15	1	1	2	21 8 0
Angul subdivision	1	1	9	27	10	28	8	17	1	4	1	7	23	86 2 0
Khorda ditto reserves ...	...	...	9	16	9	16	6	11	1	2	2	3	36	134 8 6
Ditto ditto protected forests.	...	...	15	93	15	93	15	75	...	18	...	...	27	116 14 0
Total ...	3	6	120	347	123	353	91	204	23	126	9	23	2,524	20,856 4 5

25. The undetected and detected cases of the year, and those disposed of by the courts and compounded, are classified thus:—

Classification of offences.	Cases of 1889-90.		Cases disposed of by courts.	Convictions.	Percentage of convictions.	Cases compounded.	
	Undetected.	Detected.				Number.	Amount.
							Rs. A. P.
Injury to forests by fire	34	12	11	9	81·8	1	1 0 0
Unauthorized felling or appropriation of wood and minor produce	...	900	52	42	80·8	846	8,024 5 9
Grazing without permission or in tracts in which grazing is prohibited	1	261	22	18	81·8	234	1,573 13 0
Other offences:—							
Shooting and fishing in closed forest without permission	...	11	7	7		4	10 0 0
Breach of rules under section 41 of Act VII of 1878	...	303	6	5		297	1,688 14 2
Breach of rules under section 25(i) of Act VII of 1878	...	5	...	...		5	50 0 0
Breach of conditions on reverse of permit ...	...	1,115	5	1	75·8	1,110	9,373 11 6
Damaging trees	...	20	2	2		18	79 8 0
Unauthorized cultivation and breaking up land	...	4	4	4		...	...
Cooking outside authorized camping grounds ...	...	4	1	...		3	4 0 0
Obstructing public servant and bribery	...	3	3	2		...	.....
Receiving stolen logs	...	...	1	1		...	.....
Imperfectly recorded	...	6	...	...		6	51 0 0
Total ...	35	2,644	114	91	79·8	2,524	20,856 4 5

26. *Darjeeling subdivision.*—The punishments awarded by the courts in the 32 cases in which convictions were obtained were:—Unauthorized fellings, 19 (25 persons), fines from Rs. 4 to Rs. 20; grazing 10 (12 persons), fines from Rs. 2 to Rs. 30; other offences, 3 (3 persons), fines from Rs. 3 to Rs. 6. The cases compounded were:—Unauthorized felling, 108 (143 persons), for Rs. 311-12; illicit grazing, 123 (137 persons), for Rs. 596-6; and 488 cattle were impounded. There were 2 cases (2 persons) of illicit grazing pending at close of the year.

27. *Teesta subdivision.*—Convictions were obtained in the 2 cases (5 persons) taken into court for unauthorized felling, and fines aggregating Rs. 18 were inflicted. The following cases were compounded:—19 (48 persons) unauthorized felling for Rs. 193-12; 41 (42 persons) illicit grazing for Rs. 230, and 12 (65 persons) other offences for Rs. 60. Three cattle only were impounded.

28. *Kurseong subdivision.*—The 3 cases (18 persons) resulting in convictions were:—Unauthorized appropriation of grass, 1 (3 persons), fines aggregating Rs. 5; 2 (15 persons) other offences, fines of Rs. 2 to Rs. 10 each; the 57 cases (75 persons) compounded were—Unauthorized felling and removal 24 (33 persons) for Rs. 85-12-3; grazing, 18 (21 persons), Rs. 161-6; other offences,

15 (21 persons), Rs. 65-8. The number of cattle impounded aggregated 982, chiefly in the Balasan and Bamonpokri ranges.

29. *Julpigori subdivision.*—The courts awarded punishments in 3 cases (3 persons) for firing forests:—rigorous imprisonment for one and for six months, and for one month with a fine of Rs. 50. The 31 cases (51 persons) compounded were :—Unauthorized felling, 13 (13 persons), Rs. 161; grazing 14 (23 persons), Rs. 315-8; other offences, 4 (15 persons) Rs. 19. At close of the year 1 case (1 person) for firing the Dainah reserve was pending.

30. *Buxa subdivision.*—Two cases (8 persons) for illicit grazing were detected and taken into court, of which 1 (5 persons) remains pending; in the other one person was discharged and two were fined Rs. 25 each. The 7 cases (7 persons) compounded were for unauthorized felling, for which Rs. 70 was the compensation accepted.

31. *Palamow subdivision.*—The 5 cases (8 persons) taken into court resulted in the conviction of 7 persons. In 4 cases (7 persons) for injury to forest by fire, 6 were found guilty and sentenced to one month's rigorous imprisonment, and a similar punishment was awarded to a man for unauthorized felling. The 19 cases compounded were made up of 18, unauthorized felling and removal Rs 45-8, and one illicit grazing Rs. 2.

32. *Hazaribagh subdivision.*—Compensation was accepted in 6 cases (10 persons)—3 unauthorized felling, Rs. 11, and 3 illicit grazing, Rs. 52-6.

33. *Singbhoom subdivision.*—The report contains the following information given by Mr. French, Sub-divisional Officer:—

"18. The following prosecutions were undertaken during the year as shown in form No 50.

"19. The cases compounded are also shown in form No. 50 and are not numerous"

From the form No. 50 and monthly accounts the following information has been obtained. Three cases (5 persons) were taken into court, 2 for firing reserved forests and 1 for illicit removal, of which 2 cases resulted in the conviction of 4 persons; 1 person was also convicted of illicit removal of produce from waste lands. In the reserves 7 cases of illicit removal and one of grazing were compounded for Rs. 26-15-6.

34. *Sunderbuns Division.*—Of the 17 cases (41 persons) taken into court, 1 (4 persons) for unauthorized felling was pending at close of the year. Of the 16 cases decided by the courts, 9 (14 persons) resulted in convictions, the punishments varying from fines of Re. 1 each to a fine of Rs. 50 with a month's rigorous imprisonment in default. The 2,005 cases (2,005 persons) compounded were—593 illicit removals for Rs. 6,976-12-6 and 1,412 other offences, chiefly breach of rules under section 41, and on reverse of permits, for Rs. 11,112-9 8. Of these amounts Rs. 2,349-3 were paid as rewards to subordinates and informers under the Conservator's sanction, and Rs. 135 by the courts.

35. *Chittagong Division.*—Including 2 cases (5 persons) pending from the previous year, 9 cases (23 persons) were before the courts, of which 1 case (1 person) for illicit removal remains pending. Convictions were obtained and upheld in 4 cases (7 persons), but in 3 cases the convictions obtained were reversed on appeal. The 4 cases upheld were—2 (3 persons) for illicit removal (1 person for receiving the produce was released on appeal) which resulted in 2 persons being sentenced to 3 months' rigorous imprisonment each, and 1 person being fined Rs. 5. Under other offences in 2 cases 4 persons were convicted—1 person for knowingly receiving stolen timber was sentenced to 6 months' rigorous imprisonment (upheld on appeal), and 3 persons were fined Rs. 15 each for breaches of rules under section 41 of the Indian Forest Act. Two cases of unauthorized felling were compounded for Rs. 21-8.

36. *Orissa Division.*—In the Angul subdivision 10 cases (28 persons) were before the courts, of which 1 case (1 person) was of the previous year, and 1 case (7 persons) for unauthorized felling remains pending. Convictions were obtained in 8 cases against 17 persons, besides 2 let off on appeal—1 case (1 person) firing forest 15 days' imprisonment; 1 case (1 person) unauthorized felling fined Rs. 20; 2 cases (6 persons) for misappropriating elephants' tusks, 3 fined Rs. 5 each, 1 imprisoned for 3 months and fined Rs. 500, 1 imprisoned for 1 year and 1 for 6 months with a fine of Rs. 200; in 4 cases under other offences the accused were fined from 8 annas to Rs. 2 each. The cases

compounded were—12 of unauthorized felling, Rs. 59·2, and 11 of illicit grazing, Rs. 27.

In the Khurda subdivision 24 cases (109 persons) in all were taken into court, of which 2 (3 persons) of illicit grazing remain pending. Convictions were obtained in 21 cases against 86 persons, but the only particulars that can be gleaned from the report are that fines varying from Re. 1 to Rs. 20 were inflicted by the courts, aggregating Rs. 460-4 in all, and 1 person was sentenced to 7 days' and another to a month's rigorous imprisonment. Rupees 59-12 in all were paid to informers and others as rewards during the year in this Division.

3.—Forest Fires.

37. The area over which special measures were adopted, by isolation and the appointment of fire patrols, for the protection of the reserved forests from fire, was 778,577 acres against 1,133,933 in the dry season 1889. As indicated in paragraph 46 of the report for 1888-89, it was intended to confine the limits of specially protected areas in Singbhoom to those that can be properly supervised, and instructions to this effect were issued; they have, however, not been acted on by the subdivisional officer (Mr. French), and the whole of the Singbhoom reserves have consequently to be omitted in the statement for the dry season 1890 of areas over which special measures were adopted: otherwise all areas attempted in 1889 have been specially protected in 1890, with the exception of 6 acres excluded from reserves in the Teesta subdivision. With the addition of the Singbhoom reserves, the area over which less extensive measures were adopted has increased from 126,249 acres to 593,599 acres.

38. The fire-trace records have been neglected in some divisions, notably in Orissa, where the originals from 1886 were returned, but have not been yet received back; measures will be taken to have all posted up to date this year.

39. The following table accounts for protective measures adopted against fire during the dry season 1890, and the cost of the same from the commencement of these operations in 1872:—

Division or subdivision.	Up to 31st May 1889, by isolation and rules.		During dry season, 1890.								Total cost of fire protection from 1872 up to 31st May 1890.
	Area actually protected during dry season 1889.	Total cost from 1872.	Area attempted to be protected.		Failures.		Area actually protected.		Amount expended.		
			By isolation, &c.	By less extensive measures and by rules.	Under isolation system.	Under rules, &c., system.	Under isolation system.	Under rules, &c., system.	Under isolation system.	Under rules, &c., system.	
	Acres.	Rs.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.
Darjeeling subdivision ...	65,533	1,405	...	65,533	...	121	...	65,412	...	117	1,522
Teesta ditto ...	159,772	11,216	103,594	56,232	247	4	103,347	56,228	1,284	401	12,901
Kurseong ditto ...	55,207	37,415	52,153	3,386	3,778	8	48,375	3,378	3,451	99	40,965
Julpigori ditto ...	100,680	14,709	118,343	...	7,191	...	111,152	...	1,946	...	16,655
Buxa ditto ...	114,647	47,961	114,987	...	221	...	114,766	...	2,535	...	50,496
Palamow ditto ...	102,661	13,579	120,389	...	22,298	...	98,091	...	628	...	14,207
Hazaribagh ditto ...	30,805	2,281	29,707	1,098	3,167	...	26,600	1,098	202	1	2,499
Singbhoom ditto ...	81,750*	7,367	...	407,350	...	411,735	...	55,615	...	975	8,342
Chittagong Division ...	...	1,047	...	...	...	...	...	...	25	...	1,072
Angul subdivision ...	175,500	5,329	179,200	...	40	...	179,160	...	2,003	...	7,377
Khordá ditto ...	59,747	6,264	60,144	...	1,814	...	58,330	...	2,649	...	8,913
Total ...	...	...	778,577	593,599	38,756	411,868	739,821	181,731	14,723	1,593	...
Grand total ...	952,362*	1,48,588	1,372,176		450,624		921,552		16,321		1,64,909

* Includes 19,810 acres proposed reserves that were protected by special measures.

40. Of the area specially protected (778,577 acres), 739,821 acres, or 95 per cent., escaped fire, against 72·9 per cent. in the dry season 1889, the cost of successful protection being an average of 3·8 pies per acre as in the previous season. On the whole area attempted under both systems, 921,552 acres, or 67·2 per cent., escaped fire, against 75·6 per cent. in the dry season 1889, the average cost, 3·4 pies per acre, being the same in both seasons.

The season was very exceptionally dry in the province till well into April, and the general result of special protective measures, where adopted, is very satisfactory. It is much to be regretted that the Singbhoom forests were practically left to their fate, for the success attained in the wild country of

Angul in Orissa shows that properly concerted arrangements can assure success, even in a season when the reserves are not specially closed against hunting and shooting, though their closure undoubtedly is a great assistance. The results in the Teesta, Buxa, Angul and Khorda subdivisions are specially good.

41. The whole area of the reserves, as regards fires, is accounted for in the following table for the dry season 1890:—

Division and subdivision.	Total area of reserved forests.	Burnt.				Successfully protected under isolation and rules, &c., systems.	Escaped fire without any measures of protection having been adopted.	Total area that escaped fire.
		Under isolation and rules, &c., systems.	Out of areas liable to fires, which were not protected.	By the Department with the view to protecting other areas.	Out of areas usually free from fires, for which no measures of protection are considered necessary.			
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Darjeeling Division—								
Darjeeling subdivision ...	65,533	121	...	...	...	65,412	...	65,412
Teesta ditto ...	159,826	251	...	...	...	159,575	...	159,575
Kurseong ditto ...	55,539	3,786	...	...	...	51,753	...	51,753
Julpigori Division—								
Julpigori subdivision ...	118,343	7,191	...	...	...	111,152	...	111,152
Buxa ditto ...	169,247	221	...	4,350	4,040	114,766	45,870	160,636
Chota Nagpore Division—								
Palamow subdivision ...	120,389	22,298	...	...	...	98,091	...	98,091
Hazaribagh ditto ...	30,865	3,167	...	...	...	27,698	...	27,698
Singbhoom ditto ...	467,350	411,735	...	...	...	55,615	...	55,615
Sunderbuns Division ...	1,011,833	...	...	...	...	...	1,011,833	1,011,833
Chittagong ditto ...	890,740	...	...	...	...	...	890,740	890,740
Orissa Division—								
Angul subdivision ...	179,200	40	...	...	...	179,160	...	179,160
Khorda ditto ...	60,144	1,814	...	...	...	58,330	...	58,330
Total ...	...	450,624	...	4,350	4,040	...	...	...
Grand total ...	3,325,009	459,014				921,552	1,944,443	2,865,995

Of the whole reserves, 2,865,995 acres, or 86·2 per cent., escaped fire during the season 1890 against 90·3 per cent. in the dry season of 1889. The decrease is due to additional areas in Singbhoom having been burnt; the results for the rest of the circle are better than in the previous season.

42. The information given in divisional and subdivisional annual reports, with few exceptions, as to the result of fires that occurred on forest growth, is very meagre. In most cases no mention whatever is made regarding the class of forest burnt over.

43. *Darjeeling subdivision.*—There were three fires in the Singalila forest, two of which ranged over 120 acres of the Sundukphu block, and the other burnt 1 acre of the South Rimbick block. The former are believed to have been caused by graziers, and the latter spread from cultivation; the offender in the latter case was discovered and compounded his offence on payment of Rs. 30. The damage done was not serious, as the area burnt over in the Sundukphu block had been previously burnt continuously in former years, and being open to sheep grazing, there is no reproduction, and in the South Rimbick block the only growth damaged was bamboos and kharani poles. There were also several small fires in the forests bordering the railway, the grass, &c., being lighted by sparks from engines. None did much damage, and the areas burnt are too small to record.

44. *Teesta subdivision.*—There were ten fires in all during the season, which burnt 251 acres of forest. In the West Teesta Range, two fires were started by troops marching down, both in the Raiang forest; one extended over 182·5 acres of the Rangnu block, and the other in the Raiang block was discovered and checked by the forester, when only half an acre had been burnt: the former did considerable damage to sâl seedlings, and was extinguished by counterfiring.

In the East Teesta Range four fires occurred. In the Kalimpong forest, Comesee block, a fire broke out on 8th April 1890 and extended over 40 acres before it was finally extinguished by counterfiring; it was caused by travellers cooking outside the camping-ground on the Rilli river; offenders were not discovered. The three other fires occurred in March 1890 and extended over 2 acres in all of the Paiengaon and Rissoom blocks, Rissoom forest, and were quickly extinguished; the offenders were villagers in khas lands, who were discovered since the close of the year and have compounded.

In the Pankasari Range there was one fire, in the Kolbong block, Pankasari forest, which burnt over 2 acres only on 3rd April 1890; the fire spread from khas land cultivation, and the offenders were not discovered.

In the Chel Range three fires took place. One, on 27th January, burnt 16 acres of the Mungpong block, Mungpong forest, and started from jote lands south of the boundary in the Julpigori district, it is believed by graziers, but the offenders were not discovered. The other two fires were in the Churanthi block, Geesh forest, extending over 2 acres in all; one was accidental, starting from the camp of the Deputy Superintendent, Geological Survey, and the other from careless burning of grass on jote lands; offenders not discovered.

The damage done, except in the Rangnu block, was small, the areas burnt being grass lands.

45. *Kurseong subdivision.*—The year was a disastrous one owing to the large fire in the Sukna Range, which raged from 3rd to 5th April, and burnt about 3,500 acres of the Mahanadi forest and 60 acres of compartment 8, Sukna block, Sukna forest, besides 433 filled bags of charcoal and about 100 maunds that had not been put into bags. This fire originated in the Mohurgong private forests, and a strong wind carried the flames across the fire line; it did an immense amount of damage and was eventually stopped by counterfiring along the Panchfootia path and a cleared dry jhora. About 50 acres of compartment 2, Kynanuka block, Sukna forest, were also burnt on 4th May; this fire originated from a spark from an engine, and the elephant shed was saved by a counterfire along the fire trace from the Hill Cart Road to the Rungdung nadi. These fires have undone to a great extent the vast amount of good done by seven years of successful fire protection.

In the Dhobijhora forest, Kurseong Range, about 8 acres of bare slope were burnt on 23rd February, it is believed, by Dow Hill schoolboys.

In the Balasan Range there were three fires; on 14th March 14 acres of the Upper Mechi block were burnt; the fire is believed to have been due to incendiarism; on 19th February a fire originating in the Manjha Tea estate burnt over 30 acres of the Lohaguri block, Manjha forest, and 60 acres of the Central Mechi block, Mechi forest, and another fire spread from the Chota Chenga Tea estate over 30 acres of the Nipania block, Mechi forest.

In the Terai Range one fire originated in the Dalkajhar forest, and burnt 8 acres of the Moolta and 17 acres of the Rishabari blocks; cause unknown.

In the Bamonpokri Range 9 acres of the Lamagumba forest were burnt, evidently from some person having set a light to the dry grass. A large fire in the adjoining forests of the Central Terai Tea Company was kept out of the Rakti forest by means of the fire lines and counterfiring.

In the Champasari Range the measures of protection were wholly successful in keeping out the tremendous fires that raged in adjacent private forest and waste lands.

46. *Julpigori subdivision.*—There were 19 fires in all, which burnt over 7,191 acres of the reserves; though a serious matter, this is an improvement on previous years' efforts at fire conservancy.

In the Apalchand Range, 40 acres of the Guzlidula block were deliberately fired by a buffalo driver, whose defence was that he was afraid of tigers; he was convicted and sentenced to six months' rigorous imprisonment. Seven hundred acres of the same block and 1,200 acres of the Rajadanga block were burnt through carelessness in burning grass cut on the fire lines. Three fires in the Chengmari block, which raged over 1,320 acres, appear to have been deliberately lighted by some person or persons unknown.

In the Tondu Range 348 acres of the Lower Tondu block were fired; in one case the offender was not discovered, and in the other the damage was compounded.

In Muraghat Range there were four fires in the Dainah forest, which extended over 790 acres. In one case a peon of the Falakata Tehsil office is accused; in the second the fire spread from the Jaldaca Tea estate, and in the other two persons passing along roads are believed to have fired the forest, but they were not arrested. In the Muraghat forest 710 acres were burnt in three fires, the origin of which was not discovered. In the Goshaihat forest, fires spread over 180 acres caused by travellers, who were not detected.

In the Falakata Range 1,903 acres were burnt in four fires, in none of which were the offenders detected.

47. *Buxa subdivision.*—The results are again extremely satisfactory, 221 acres only having been burnt out of 114,987, over which special measures were adopted.

In the Borojhar sâl tract 16 acres of grass land caught fire from adjoining khas lands; in the Poro block, Buxa range, 5 acres of compartment 3 were burnt presumably by some one passing along the Dima road, and 200 acres of the Bholka forest were burnt accidentally when firing grass on the cleared lines. The damage done was in all cases very small.

In the Hill forest block 350 acres, and in the Borojhar sissu tract 4,000 acres, were burnt by the Department to save sâl tracts adjoining, and of the forests usually free from fires the following were burnt accidentally during this exceptionally dry season:—Borojhar, 1,000 acres; Gabur Basra, 120 acres; Raidak sissu tract, 1,920 acres; and Dhumpara, 1,000 acres.

48. *Palamow subdivision.*—The year was not successful, 22,298 acres of especially protected forests having been burnt.

In the Northern Range the following fires occurred:—Saidope forest, 2,560 acres, in April 1890, caused by fire spreading from khas lands, where a man was burning rubbish under mahua trees without giving notice of his intention. He has since been sentenced to one month's rigorous imprisonment. Ramundag forest, 5,000 acres, in April 1890, occurred in the same way, and accused has since been sentenced to 15 days' rigorous imprisonment and a fine of Rs. 10. Kumandi forest, 3,200 acres, in April 1890, spread from khas lands.

In the Southern Range 1,008 acres of the Seemah forest were burnt in two fires—8 acres on 21st March 1890, and 1,000 acres on 20th April 1889. The latter, in the Netarhaut block, was not reported last year; 10,530 acres of the Barasand forest were also burnt in three fires which occurred as follows:—21st March 1890, Koojram block, 10 acres; 6th April 1890, Heswa block, 9,520 acres, and Koojram block, 1,000 acres; culprit arrested and sentenced by the Magistrate to 15 days' imprisonment with hard labour. In the other cases the originators of the fires were not ascertained.

49. *Hazaribagh subdivision.*—There were two fires in the Koderma reserve which spread over 3,167 acres. The first, on 21st March 1890, of about 600 acres, originated at Moglamaram camping-ground, but the persons who caused it were not found; the other, on 3rd May 1890, of about 2,567 acres, originated in the Gya district, and though every effort was made to divert its course outside the reserve and extinguish it, it eventually entered the forest.

50. *Singbhoom subdivision.*—The orders issued on the annual plan of operations, to confine measures of protection from fire to about half the area attempted during the dry season 1889, and to protect that area carefully and thoroughly, have not been carried out. Expenditure has been frittered away to an aggregate of Rs. 535 during the dry season 1890, and Rs. 440 of previous season's expenditure in addition is included in this season's charges over all the ranges. The results are that out of the whole of the reserves, 467,350 acres, 55,615 only are reported to have escaped fire, and the record of this area even seems somewhat doubtful. The Conservator has accordingly placed the areas in Singbhoom under Head II of the fire return.

51. *Chittagong Division.*—A fire belt was cleared along the teak plantation of the year as a precautionary measure, and no fires occurred in the reserves.

52. *Orissa Division.*—In the Angul subdivision the boundaries being properly defined, great progress has been made in effectually keeping fires out of the reserves, 40 acres only having been burnt accidentally when clearing fire lines out of the whole area of 179,200 acres especially protected, which is extremely satisfactory. Results in the Khorda subdivision were also exceptionally good, 1,814 acres being burnt out of 60,144 acres, and of these 1,802 really belong to the fire-season 1889, but were not then reported. There were two fires in May 1889 that burnt over this area in the Tamna block, caused by villagers collecting edible roots and honey, but the offenders were not discovered. Fire entered on 12 acres of the reserves only during the fire-season 1890.

4.—Grazing and Fencing.

53. The grazing rules with one exception remained unaltered in all Divisions, and have continued to be worked without any friction with the graziers. In the Khorda subdivision of Orissa on a memorial presented to Government the rules were relaxed, and the grazing of cattle belonging to Government ryots resident on the estate as well as to any outsiders, whether from Madras or the adjacent native States, was allowed at the purely nominal rates in force in Government waste lands in the Western Dooars. The concessions have not been availed of to any great extent; this is fortunate, having regard to the forests meeting the future requirements of Government ryots in grazing and fuel, and it is satisfactory that the civil authorities have since recorded that they consider outside grazing should be excluded by the enhancement of rates.

Appendix C to this report is a return of areas closed to grazing and grazed over during the year.

54. *Darjeeling subdivision.*—The grazing rules have worked well and smoothly; the number of cattle grazing for the Darjeeling and Jalapahar milk and butter supply has altered very slightly, but there has been again a considerable increase in the number of cows and sheep that have paid for grazing in the Singalila forest.

The grazing that has been allowed in the reserved forests is—

				Average number grazing daily.
Cows,	one-month permits,	3,809		
	three-month „	858	...	540
Bullocks,	one-month „	419	...	35
Buffaloes,	three-month „	35	...	9
Sheep	„ „	2,053	...	513
Ponies,	one-month „	5	...	...

Compensation, aggregating Rs. 745, was accepted for illegal grazing (of 634 animals of sorts) and removal of fodder. The total revenue realized for grazing and fodder grass, including Rs. 7 credited in the divisional accounts, was Rs. 5,434 against Rs. 4,191 in the previous year. The increase of Rs. 1,243 is thus distributed:—Grazing in forests under grazing rules, Rs. 43; in Singalila forest, Rs. 382; sale of fodder, Rs. 513; compensation accepted, Rs. 305.

55. *Teesta subdivision.*—The grazing availed of during the year is classified thus, the number of animals being recorded as grazing for one day:—

	Buffaloes.	Cows.	Bullocks.	Goats.	Ponies.	Total.
On one-month permits, at ordinary rates	103	232	41	5	3	384
„ three-month permits, at reduced rates (Government tenants)	92	936	9	3	10	1,050
„ twelve-month permits, free (35 mandals)	22	175	...	...	10	207
Total ...	217	1,343	50	8	23	1,641

The subdivisional officer reports that only 3 out of the 35 mandals entitled to graze their cattle free under the grazing rules applied for permits; the others say that they prefer to graze in the khas land, of which there is ample for all their requirements.

The receipts from sale of fodder on permits more than doubled during the year, while those from grazing were somewhat less. The total revenue from grazing and sale of fodder increased from Rs 1,995 to Rs. 2,052, including

compensation for fodder and the illicit grazing of 395 head of cattle, and Rs. 4 for confiscated fodder were credited under Head III.

56. *Kurseong subdivision.*—The number of Dow Hill School cattle that grazed in the Dhobijhora forest was 27 daily on the average; in the Terai grazing on boundaries and fire lines only of closed blocks was permitted, with the view to helping to keep down the grass, to an average daily number of 31 cows, 15 bullocks, and 18 buffaloes, and the arrangement is reported to have worked satisfactorily. The revenue from this source was Rs. 914 against Rs. 1,141 in the previous year, including compensation Rs. 173 for the illicit grazing of 127 cattle and removal of fodder, the falling off being in receipts from sale of permits for fodder. Rupees. 3 were expended on fencing, the repairs being generally done by the forest guards.

57. *Julpigori subdivision.*—Special sanction was accorded to the grazing of an average daily number of 97 buffaloes and 17 bullocks and cows in the beds of the Dhurla, Moortee and Jaldaka rivers, and the revenue realised, including Rs. 315 for the illicit grazing of 473 buffaloes and calves, was Rs. 632.

58. *Buxa subdivision.*—For the Buxa cantonment supply grazing was allowed to a daily average number of 3 cows and 102 buffaloes within the Buxa reserve, and 1,142 daily permits were issued for elephant fodder, the receipts being Rs. 454 against Rs. 355 in the previous year.

59. *Palamow subdivision.*—The whole forest area was open to grazing, but restrictions were enforced in the Betlah forest, where the rates were doubled with the view to keeping out cattle other than those of carters employed by the department owing to the damage done to reproduction of bamboos. The daily average number of cattle grazed was 815 buffaloes, 107 calves and 67 cows, and the receipts, including Rs. 2 for the illicit grazing of 32 cows, rose from Rs. 560 to Rs. 691.

60. *Hazaribagh subdivision.*—Three old village sites were leased in the Koderma reserve for grazing with the view to keeping down the long grass, and in the Horhap forest the residents of the Horhap village only were allowed to graze their cattle. The average daily number of cattle grazed was buffaloes 78, cows 21, bullocks 61. The revenue rose from Rs. 64 to Rs. 118, including the value of 399 daily permits for stall feeding, and Rs. 52 realized for the illicit grazing of 129 cattle.

61. *Singbhoom subdivision.*—All forests were open to grazing, and the following is the daily average number of cattle for which grazing was paid for:—Buffaloes 401, cows 13. The revenue credited is Rs. 279 (including Rs. 5 compensation for illicit grazing) against Rs. 336 in the previous year.

62. *Orissa Division.*—In the Angul subdivision the following is the daily average number of cattle that paid for grazing in the reserved forests:—Buffaloes 157, calves 39, cows 2. The revenue realized, including compensation for illicit grazing in this subdivision, was Rs. 230.

In the Khorda subdivision, the charges for grazing in the reserved and protected forests for outsiders as well as persons residing in the Khorda estate other than Government ryots were reduced to the following *annual* rates:—Per buffalo 4 annas, per buffalo calf 2 annas, per cow or bullock 3 annas, per calf 1 anna. These nominal rates came into force from 16th December 1889. The average number of cattle grazed daily on payment during the year in the forests was—buffaloes 26, cows 19. The revenue realized, including compensation for illicit grazing, was Rs. 275.

5.—Natural Reproduction.

63. *Darjeeling subdivision.*—The year has been a poor one as regards the seeding of the better classes of trees. As regards oak, the seeds of all kinds are eaten by men, animals and insects; it was specially noticed that of the seed of *Quercus pachyphylla* examined, more than 50 per cent. of the acorns were pierced by some boring insect, the egg of which appears to have been laid in the flower and to have developed with the seed. The natural germination of seed is seriously interfered with in many places by the thick undergrowth of Kibu (*Strobilanthes pectinatus*) and balsams; the former will flower this year, and an experiment will be made in selected areas of cutting it down before the seed

forms and clearing spaces now encumbered with it under seed-bearing trees of the better species, with the view of assisting the chance of germination of the latter. It has been noticed that in many places where seedlings were plentiful up to about a year's growth, they have, on the spot being again visited, been found to have disappeared; the cause of this remains to be explained. With the view to determining it, 50 búk seedlings were counted last autumn in the lower portion of the Pograinbong block, and observations regarding these one-year old seedlings will be noted. It is a curious fact that (with the exception of *Acer Campbellii*) natural seedlings of three or four years' growth are extremely rare, though many seedlings of the year are found; reference is here made to the timber-producing species, and these facts form a problem which needs a solution. Mr. Rogers bears further testimony to the impossibility of natural reproduction of *Abies Webbiana* and *dumosa* in the Singalila forests on the areas frequented by sheep graziers, though in some of the precipitous and secluded valleys natural reproduction of these is most encouraging.

64. *Teesta subdivision.*—The absence of seedlings generally of useful timber trees, with the exception of sâl, is specially noticed in the forests; sâl is also reported to be frequently grazed, and the subdivisional officer has himself observed cattle attacking the young sâl shoots even when there were sufficient succulent shrubs and grasses close by ordinarily grazed eagerly by cattle. The Conservator has himself noticed buffaloes grazing for choice, in Singbhoom, on sâl coppice shoots when these were surrounded with an abundance of grass. The Tama bamboo (*Dendrocalamus Hamiltonii*) seeded freely in the Chel range, and 2½ maunds of seed have been collected.

65. *Kurseong subdivision.*—Here also, as in Darjeeling, the seeding of the better classes of hill trees has been very poor; sâl, tún, chilauni, kala siris, karam and panisâj have, however, seeded freely, and, except where impeded by the excessive growth of bamboo, all species have germinated well.

66. *Julpigori subdivision.*—The remarks recorded refer chiefly to the continued extension of sâl growth in fire-protected savannahs.

67. *Buxa subdivision.*—The sâl has not blossomed satisfactorily this season. Savannahs are in many places fast clothing themselves with tree growths, thanks to consecutive years of exemption from fires. Previous to 1886-87 the savannahs in compartment 15 of the Rajabhatkawa block, Buxa reserve, used to be burnt annually by the Department to preserve the adjoining sâl areas; but the result of three years' conservancy has been very marked, and trees (of inferior species in many classes no doubt) have sprung up and overtop the grass in many places. Similar improvement is observed in the savannahs of the Raidak sâl tract, but it is not so marked in those of the Bholka forest. The caterpillar mentioned in last year's report has not reappeared this season. The specimens of the two kinds sent to Dehra-Dun for identification were unfortunately mislaid there, and no report on them has been made.

68. *Palamow subdivision.*—Remarks general only, with a note that sâl and other saplings were damaged by frost in January.

69. *Hazaribargh subdivision.*—Remarks general only.

70. *Singbhoom subdivision.*—Remarks general, imputing the enemy to the natural reproduction of sâl to be fires.

71. *Sunderbuns Division.*—No remarks.

72. *Chittagong Division.*—The season was one of abundant seeding in the case of most timber trees, and the flowering and seeding were generally at the usual time. It was observed, however, that the capsules of tún burst early (first week in April) at Sitapahar, while the jarúl, kerran (*Pongamia glabra*) and a few other trees were late in flowering. The teak seed obtained from the plantations is good and sound, and has germinated freely locally, but a good deal was blown away and lost during storms in March. The gamhar (*Gmelina arborea*) is establishing itself freely in the Sitapahar reserve, and ousts the teak where they are closely associated, owing presumably to its quicker growth and more extended and dense canopy. Teak has also to give way to *Dillenia pentagyna* under similar circumstances.

73. *Orissa Division.*—The opening of some of the reserves to free grazing in Khorda last season has resulted in the sâl seedlings that were on the ground having been eaten down or otherwise killed; otherwise the remarks on natural reproduction are of a general nature only.

6. Artificial Reproduction.

74. Particulars of this work are given below—

Division or subdivision.	On 1st April 1889.		Added during 1889-90.		On 31st March 1890.	
	Area.	Cost.	Area.	Cost.	Area.	Cost.
Regular Plantations.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Darjeeling subdivision ...	1,254	44,878	31	1,411	1,285	46,289
Kurseong ditto ...	807	45,665	...	71	807	45,736
Julpigori ditto ...	3	230	...	...	3	230
Chittagong Division ...	588	56,640	30	3,652	618	60,292
Khorda sub-division ...	244	4,160	55	764	299	4,924
Total ...	2,896	1,51,573	116	5,898	3,012	1,57,471
Cultural operations.						
Darjeeling subdivision ...	26	1,414	...	97	26	1,511
Teesta ditto ...	2	16	...	13	2	28
Kurseong ditto ...	295	4,303	...	144	295	4,447
Julpigori ditto ...	...	..	14	26	14	26
Buxa ditto ...	619	16,670	...	76	619	16,746
Chota Nagpore Division ...	...	92	...	2	...	94
Palamow subdivision ...	...	77	...	15	...	92
Hazaribagh ditto ...	...	36	...	6	...	41
Singbhoom ditto ...	...	107	...	34	...	141
Angul ditto ...	2	160	...	3	2	163
Khorda ditto ...	37	766	4	291	41	1,057
Total ...	981	23,640	18	706	999	24,346
Grand Total ...	3,877	1,75,213	134	6,604	4,011	1,81,817

and the areas are thus classified in acres—

Division or subdivision.	Hill trees.		Teak, tún, sál, &c.	Conifers.	Bamboos.	Miscellaneous.	Total.
	Oak, &c.	Tún, &c.					
Regular Plantations.							
Darjeeling subdivision ...	663	472	...	...	150	...	1,285
Kurseong ditto ...	48	...	457	13	236	53	807
Julpigori ditto ...	...	...	3	...	...	...	3
Chittagong Division ...	...	...	604	...	...	14	618
Khorda subdivision ...	...	...	299	...	...	..	299
Total ...	711	472	1,363	13	386	67	3,012
Cultural operations.							
Darjeeling subdivision ...	26	...	...	...	...	...	26
Teesta ditto ..	...	...	2	...	...	...	2
Kurseong ditto ...	210	...	76	...	1	8	295
Julpigori ditto ...	...	...	14	...	...	...	14
Buxa ditto ...	...	...	618	...	...	1	619
Angul ditto ...	...	...	2	...	...	...	2
Khorda ditto ...	...	...	41	...	...	...	41
Total ...	236	...	753	...	1	9	999
Grand Total ...	947	472	2,116	13	387	76	4,011

The area of plantations has been extended by 116 acres classed as regular plantations and 18 acres under cultural operations, the cost of which, with the up-keep of former areas, is Rs. 6,604.

75. *Darjeeling subdivision.*—It is understood that 23,609 seedlings in all were put out during the year, consisting of champ, búk, pipli, túni, walnut, lali, kawala, katús, phalat, cryptomeria and silver fir, but the report contains again particulars as to expenditure only. Over 66 maunds of seed were collected, and the nurseries are well stocked with seedlings for planting out; 11 lbs. of cryptomeria seed were also collected. The additions were 30 acres to Dooteria and 1 acre to Rangirum plantations, in which 14,165 plants were put out.

76. *Teesta subdivision.*—The plants in the Seem block have attained a height of from 5 to 6 feet. The site must, however, be cleared of noxious growth round the young plants, or they will not survive.

77. *Kurseong subdivision.*—The champ planted in compartments 5 and 6 of the Dhobijhora forest in 883-84 are doing well; they stand from 15 to 20 feet in height, and a few flowered this year. The oak and chestnut in this plantation have not done well, and a few plants only survive. Last year's

planting over 2 acres has not been successful; the nurseries at Dhobijhora have been extended and improved, and the whole area of 11,540 square feet is sown with seed of useful timber trees. In Bamonpokri India-rubber cuttings were transplanted on to the lines, and 1,000 new cuttings have been put down in the nurseries. In Sukna a small nursery has been prepared and sown with lampatia, tún and begay timur; 2,000 rubber-cuttings were also put down. The tún seedlings and rubber are doing well, but the other seed has not yet germinated. The rubber cuttings put out on fire-lines have been much damaged by deer. The teak in Bamonpokri are reproducing themselves naturally.

78. *Julpigori subdivision.*—Attempts have been made to assist natural reproduction in the Guzliduba, Rajadanga and Lower Tondu blocks by sowing sâl and malata in lines cleared in the savannahs by dragging logs through by elephants. The areas are not computed for the former blocks, where 18 seers of malata seed were sown on the inner edges of boundary lines without success: in the Lower Tondu block 14 acres were treated with 7 maunds of sâl and 6½ seers of malata seed, which have germinated thinly, and the seedlings are doing well. Sissu seed has been collected for sowing in the Chengmari block.

79. *Buxa subdivision.*—In compartment 15, Rajabhatkawa block, in addition to the 186+97 mahogany plants that were alive on 1st April 1889, 140 were put out this year, but 69 plants only are now alive in the whole plantation. Their failure is attributed to the unusually dry season, and the sâl, jack and mango that were put out with them are all doing well. Of 46 mahogany plants around Rajabhatkawa rest-house, 39 are alive and well.

The experiments of broadcast sowing in lines made by elephants dragging logs through savannahs were continued, and the following lines were so treated:—Buxa reserve 26·5, Borajhar 52, and Salkuer 3, total 81·5 miles, on which 19 maunds of sâl and 13 maunds of malata seed were sown broadcast. The result has been so far satisfactory that many seeds have germinated, and it has been decided to continue the system next year.

80. *Chota Nagpore Division.*—The divisional officer reports 42 mahogany plants in the Betlah forest to be alive at the close of the year, and 22 divi-divi in the Palamow subdivisional office compound; 18 plants of the latter have also survived in Hazaribagh. In Singbhoom the 19 mahogany trees have reached 8 to 9 feet in height, and divi-divi are doing well.

Eight seers of solid bamboo seed (*Dendrocalamus strictus*) were distributed among the subdivisions, two seers being kept at Ranchi The results have been generally fairly good. At Ranchi the quantity sown in the office compound and station is reported to have produced fine young plants; in Palamow the results in Betlah forest are 50 per cent, Bendi forest *nil*, Maromand forest 1,310 seeds germinated, of which 837 were killed by frost; in Hazaribagh 207 plants are now alive; in Singbhoom those sown at head-quarters are reported to have done well, and about 50 plants survive at Samta, but in the Porahat range such as germinated were killed off by frost.

81. *Chittagong Division.*—In the new nursery at Chitmaram, Sitapahar reserve, 14 maunds 23 seers of seed were sown, chiefly teak, jarúl and nagesar. Vacancies in the Kukighât plantations were filled with 10,822 transplants from the 1888-89 nurseries, and are doing well; these are chiefly teak, jarúl, tún and pitraj. In the new extension of 30 acres at Chitmaram 47,235 plants were put out, of which about 11,000 were used to fill in vacancies during the season, and were chiefly teak, jarúl, tún and sissu. The season was a most unfavourable one for plantation work, owing to uneven distribution of rainfall and numerous breaks of intensely hot weather, and at the end of the year about 50 per cent. of the new transplants survived.

The rubber plants in plot D at Kaptai, put down in the rains of 1888, are doing well. Of 600 rubber-cuttings put into a prepared nursery in 1889, 480 struck and looked promising, but after the intense heat of April and May 1890 only 200 survived, and these have clearly established themselves. One thousand nine hundred and fifty three plants have been put out along roads and paths in the vicinity of Kaptai, and 4,976 seedlings were made over to planters and others for putting out in their gardens and along public roads in the Collectorate.

82. *Orissa Division.*—The Barunai hill plantation, Khorda, was extended by 55 acres in 38 bands cut along the contour of the hill, in which 20,095 plants were put out, and vacancies filled with 9,420, chiefly tún, with about 40 per cent. of success. In Chandka block, compartment 9 plantation was extended by 2 acres, in which 4,773 plants were put down, chiefly kongora and tún, with over 50 per cent. of success; Churang block, compartment 8 plantation was also extended by 2 acres, in which 2,217 plants were put out, and vacancies in the old plantation were filled with 2,910 seedlings, chiefly kongora; in these plantations the piasal have done best, 80 per cent. being alive, and next tún and teak, of which 60 per cent. have survived, but all have been browsed by deer and in some cases by cattle. Vacancies in compartment 6 plantation were filled with 3,514 plants, chiefly kongora, and the old plantations were tended and fences repaired where necessary. The bamboo seed received from the Central Provinces germinated fairly well, but all the plants died down soon after.

In the Angul subdivision one tún plant only survives at Tikarpara, but the teak and babúl are doing well.

7.—Cutting of Creepers, cleanings and early thinnings.

83. Creepers were cut over 22,970 acres, chiefly in the Julpigori Division, and cleanings and early thinnings were undertaken to a certain extent in Kurseong, Julpigori, Chittagong and Khorda.

84. *Darjeeling subdivision.*—Parts of the Poomong plantation were freed from noxious vegetation. Early thinnings are necessary in Rungbul and Dooteria, and this work will be taken in hand shortly. The total expenditure, including fencing plantations and making water-channels, debited to A. VIII*f*, is Rs. 69.

85. *Teesta subdivision* —Creepers were cut over 2,177 acres at a cost of Rs. 100 as follows:—West Teesta Range, 977 acres (including area imperfectly cleared in previous year); Chel Range, Mungpong forest, 500 acres, and Ramthick block, Geesh forest, 700 acres.

86. *Kurseong subdivision.*—The work done was creeper-cutting on 999 acres, and the cost, including fencing, was Rs. 84. In the Bamonpokri Range 572 acres of the blocks specified in the working plan were cleared of creepers, including most of the work left incomplete in 1888-89; in the Sukna Range 108 acres in compartment 2, Kuklong block, and 319 acres of the Chamta block were cut over. Thinnings were also carried out in compartment E. V, Bamonpokri forest.

87 *Julpigori subdivision.*—The expenditure under this head, including Rs. 5 on cleaning compounds of inspection bungalows, was Rs. 170. Early thinnings and cleanings were carried out over 322 acres of the Malhati block, Apalchand forest, and in Salbari forest. Creepers were cut over 4,160 acres in all:—Guzliduba block, Apalchand forest, 1,600 acres; Upper Tondu block, Tondu forest, 640 acres; Muraghat forest, 1,920 acres. Rupees 45-1-4 on account of work charged for in previous year were recovered, as it had been scamped.

88. *Buxa subdivision.*—The work done during the year comprised the cutting of creepers over 10,742 acres, of which 5,682, together with 5,700 cut in the previous year, were paid for in 1889-90. The charges under A. VIII*f*, including Rs. 10 on cleaning sample plots, amount to Rs. 436. The areas cut over are:—Buxa forest, Poro block, compartment 5, 200 acres; Rajabhatkawa block, compartments 19, 634 acres; 20, 2,206 acres; 21, 595 acres; 22, 1,297 acres; Panbari block, between 22nd and 28th miles compartment lines, 5,810 acres.

89. *Singbhoom subdivision.*—Creepers are reported to have been cut over 2,231 acres at a cost of Rs. 93. On cleaning sample plots Rs. 3 were expended, and Rs. 27, on account of clearing boundaries and repairing marks, have been wrongly allowed to stand under A. VIII*f* by the Audit office. The work reported is:—Saranda Range, Ghatkuri block, 1,300 acres; Chyebassa Range, Santara forest, 640 acres; Porahat Range, Birda forest, 248 acres; and Kundrugutu forest, 243 acres.

90. *Chittagong Division.*—Thinnings of teak poles were continued at the Halingamara plantations, the outturn being used departmentally. Rupees 79

appear in the accounts under A. VIII *f*, but have been wrongly allowed to stand, as the expenditure was on clearing land for plantations.

91. *Orissa Division.*—In the Khorda subdivision improvement thinnings were continued in the Chandka block, compartment 12, over 300 acres, by contractors, who removed the wood cut at reduced rates in lieu of payment for labour. Creepers were cut departmentally over the following areas:—Dandimal forest, Majana block, 400 acres, and Jaimangal block, 106 acres; Banpur forest, Arang block, 800 acres; Kuhuri forest, Sulia block, 75 acres; or over 1,381 acres in all at a cost of Rs. 74. In the Angul subdivision 1,280 acres of the Bagmunda forest were cleared of creepers at a cost of Rs. 20. Under A. VIII*f*, Rs. 141 are also charged as expenditure incurred on keeping cattle out of reserves and impounding them. The total work in creeper-cutting in the division was over 2,661 acres.

8.—Experiments and exotic trees.

92. *Darjeeling subdivision.*—The seedlings of Burmese oaks and *Catasnopsis*, said to have germinated at Lopchu, cannot be found, and it is now reported that it is doubtful whether they ever germinated. Information having been received that in Japan *Cryptomeria Japonica* propagates freely from cuttings, experiments were tried, and about ten were put down in each month from December 1888 to February 1890. The result is that of 149 cuttings 106 failed completely, 16 are doubtful, and 27 are alive.

93. *Kurseong subdivision.*—Of the seed of *Podocarpus elongatus* put down in 1888-89 none germinated, and but two seedlings of *Peteroxylon utile* have been raised. Two offsets of Wabo bamboo transplanted in the previous year appear to have failed. The one clump remaining is doing well and one of last year's shoots is 7 inches in diameter. The Muli bamboo from Chittagong is well established, as also the Paper mulberry trees, which are seeding, but the divi-divi has entirely failed, and seed of *Podocarpus* and two species of oak sown in the Kuhein block have not germinated.

94. *Chittagong Division*—There are now two plots of mahogany at Babuchat, near Kaptai, each about one-fourth an acre in extent. The transplants of 1887 are about 15 feet and those of 1889 from 4 to 8 feet in height, and all are doing well. The plots have been kept quite clean and sprinkled with lime, which has been found beneficial in keeping down the grotwh of sunn-grass and jungle, and the result is a strong and healthy growth in the plantation. The seed of *Pithecolobium Saman* collected in April was sown, and 89 healthy seedlings have been planted out. At the close of the year over 1,500 seeds have germinated in the Kaptai germination shed, germination having commenced two days after the seed was sown. The divi-divi again flowered in November, and has seeded abundantly. As the pods ripened they were collected, and about 1,000 selected seeds were sown in prepared soil and in three days germinated profusely.

Ceara rubber has proved a failure in most places at Kaptai, but 70 plants were put out this year on the warm south slopes facing the river, as it was noticed that the trees did best on slopes with a south aspect both here and at Rangamati. At the latter place there are two trees near the bungalow compound, one of which is now 2′4″in girth, breast high, and the other somewhat less. Both are in excellent condition, and the annual dying down of branchlets or terminal twigs was only one foot in January to March last. On the flat at Kaptai this dying down, which is such a peculiar feature of the Ceara rubber during the hot months, extends from 3 to 10 feet, the tree sometimes altogether dying, and in any case presenting a very unhealthly appearance.

About 20 seeds of *Acacia arabica* were received at the close of the year from Mr. Brownlow, the proprietor of the Bunnia Sadanpur Tea estate. All germinated as soon as sown, and the plants will be put out on some well-drained slope next rains.

95. *Orissa Division.*—The mahogany plants in the Churung block have been greatly damaged by deer; those in the Khorda subdivisional bungalow compound are thriving, most of them having attained to over 7 feet in height.

9.—Communications and Buildings.

96. Under communications the new work of the year was the opening out of 11·4 miles of export roads, chiefly in the Palamow and Teesta subdivisions, and of 50·2 miles of inspection paths, chiefly in the Julpigori Division. The charges of the year for new extensions of 61·6 miles amount to Rs. 2,747, of which, however, about Rs. 700 represent payments made for work done and shown in the previous year; the cost of repairs is Rs. 4,901, and the total charges of the year under roads and bridges are Rs. 7,648.

The new lines opened are—in the *Darjeeling subdivision*, three miles of 6 feet inspection paths from Goom neck along the north face of the Goompahar range towards Manibhanjan; *Teesta subdivision*, 2·1 miles inspection paths in the East and West Teesta ranges, and export roads 2·8 miles in extension of the south boundary road of the Chel Range, and 1·1 miles in the Pankasari Range, extending the Nakati road till it meets the Gorubuthan-Paren footpath; *Kurseong subdivision*, Dhobijhora central road extended by 1·5 mile, and the Khairbani inspection road by 1·4 miles; *Julpigori subdivision*, 24·9 miles of inspection paths in the Tondu, Muraghat and Falakata ranges; *Buxa subdivision*, 17·8 miles in the Borojhar and Buxa Ranges; *Palamow subdivision*, the Kechkee-Gorhee road was further extended by six miles; *Chittagong Division*, 1 mile of new inspection path was constructed at Chitmaram.

97. The work done is thus summarized, and includes the cost of construction and repairs of bridges:—

Division or subdivision.	New lines opened.		Existing lines repaired and improved.		Cost.	
	Export roads.	Inspection paths.	Export roads.	Inspection paths.	New works.	Repairs.
	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Darjeeling subdivision ...	...	3·0	...	39·5	1,332	918
Teesta ditto ...	3·9	2·1	38·5	70·1	341	756
Kurseong ditto ...	1·5	1·4	25·1	13·2	318	521
Julpigori ditto ...	...	24·9	70·2	4·3	149	625
Buxa ditto ...	...	17·8	22·8	63·7	53	214
Palamow ditto ...	6·0	...	20·5	...	477	269
Hazaribagh ditto ...	...	...	39·0	...	...	250
Singhbhoom ditto ...	...	...	179·0	29·0	...	906
Chittagong Division ...	...	1·0	12·0	15·0	77	362
Orissa ditto ...	...	...	11·5	...	...	80
Total ...	11·4	50·2	424·6	243·8	2,747	4,901

98. The following table shows the work done on buildings. The chief new works of the year under this head were:—New fuel godown at Darjeeling (party constructed); Range head-quarters and depôt bungalows, 5 built and 2 commenced; rest-houses and inspection huts 2; fuel sheds 3; germination shed 1; and several out-houses, stables, and guards' huts. The improvement of the head-quarters bungalow at Buxa by constructing a corrugated iron roof was also commenced.

	Cost. Rs.	Total. Rs.
Darjeeling subdivision—		
Construction of new fuel godown, Darjeeling (commenced)	3,487	
Ditto rest-house, Rungli-Rungliot ...	229	
Ditto temporary charcoal godown, Senchal block	34	
Ditto guards and malis' huts (5) ...	62	
Repairs to all buildings	472	
		4,284
Teesta subdivision—		
Sawing scantling for proposed buildings ...	231	
Construction of inspection hut with cook-house at Chunbatti	54	
Ditto cook-houses and stables at Chel and Pankasari range head-quarters ...	34	
Ditto Sumbong charcoal shed ...	10	
Ditto guards' huts (7)	63	
Repairs to all buildings	237	
Bungalow chowkidar's pay	48	
		677
Kurseong subdivision—		
Roofing with corrugated iron stables and repairs to buildings at head-quarters ...	639	
Repairs to buildings in ranges	471	
Bungalow chowkidars' pay	148	
		1,258
Julpigori subdivision—		
Removal and reconstruction of Muraghat and Falakata range head-quarter houses and out-houses at Mogulkata and Boirapara (latter paid in part)	159	
Construction of 12 guards' huts, &c.	117	
Repairs to buildings at head-quarters	559	
Ditto in ranges and depôts	98	
		933
Buxa subdivision—		
Reroofing head-quarters bungalow at Buxa with corrugated iron (part cost)	1,755	
Building cookshed at Borajhar range head-quarters	12	
Repairs to all buildings at head-quarters ...	407	
Ditto in ranges and depôts ...	290	
		2,464

	Cost. Rs.	Total. Rs.
Palamow subdivision—		
Construction of mohurrir's quarters and two out-houses at Betlah and Kechkee depôts ...	125	
Ditto (in part) Moondah inspection-bungalow	116	
Repairs to buildings at head-quarters	144	
Ditto in ranges and depôts	230	
		615
Hazaribagh subdivision—		
Repairs to existing buildings	...	
		62
Singhbhoom subdivision—		
Construction of fuel-shed at Chakardharpur ...	25	
Ditto stable at Hesaatola	15	
Repairs to buildings at head-quarters	156	
Ditto in ranges	331	
Chowkidars' pay	127	
		654
Sunderbuns Division—		
Construction of 7 cook-houses at revenue stations	74	
Repairs to buildings and bunds	405	
		479
Chittagong Division—		
Construction of germination shed at Kaptai ...	150	
Ditto new station-house and out-offices at Chandraghona revenue station ...	103	
Ditto ditto at Kassalong reserve head-quarters	143	
Ditto station-house at Hungar revenue station	30	
Ditto 3 guards' houses	42	
Repairs to buildings at head-quarters	349	
Ditto at revenue stations and in ranges ...	474	
Ditto at Kaptai plantation, including coolie lines	453	
		1,804
Orissa Division—		
Construction of guards' hut at Mendhasal ...	20	
Repairs to buildings at subdivisional head-quarters	320	
Ditto ditto in ranges and depôts ...	336	
		676
Total charges under A.,VII*b*, "Buildings" ...		13,906

The cost of repairs was Rs. 6,443. It was again exceptionally high, both in the Kurseong subdivision, where the head-quarters buildings have now been placed in a satisfactory state, and in Chittagong, where the buildings at Kaptai suffered severely from storms.

99. In the Kurseong subdivision Rs. 14 were expended on opening out a well at Bengdubi; in Julpigori, Rs. 4 on range head-quarter foot-paths, and in Palamow Rs. 22 on commencing the construction of a well at Maromand.

In the Sunderbuns Division the charges during the year on repairs to the steamers *Seal* and *Cygnet* were Rs. 691 and Rs. 964 respectively. The *Seal* was taken into dock on 17th February 1890 for thorough repairs, which were not completed at close of the year. Station boats and dinghies were kept in repair at a total cost of Rs. 1,572, the work being chiefly done at the Government Dockyard, Kidderpore, and Rs. 9,024 were charged during the year on account of 6 new teak-wood patrol boats and 12 new teak-wood dinghies.

CHAPTER IV.—YIELD AND WORKING.

1.—Departmental Operations.

100. The outturn of these operations, compiled from Forms Nos. 54 and 55, including confiscated, drift and waif wood and minor produce, is as follows:—

	Timber. C. ft. solid.	Fuel. C. ft. solid.	Total wood. C. ft. solid.	Bamboos. No.	Bamboos. Value Rs.	Minor forest produce. Mds.	Minor forest produce. Value. Rs.
Reserved forests	25,291	416,048	444,239	615,747	3,214	6,148	1,472
Protected ,, ...	388	...	388	...	...	...	...
Unclassed, &c., forests ...	18,494	19,423	37,917	3,960	18	164	52
Total 1889-90 ...	44,173	438,371	482,544	619,707	3,232	6,312	1,524
Total 1888-89 ...	78,613	295,907	374,520	1,028,221	10,123	59	518
Difference in 1889-90 ... More	...	142,464	108,024	...	...	6,253	1,006
Difference in 1889-90 ... Less	34,440	...	...	408,514	6,891	...	...

101. The decrease in timber is owing to thinnings having been done by purchasers in all divisions to a greater extent than in the previous year. In fuel the increase is in the Darjeeling Division, the demand of the public for charcoal having fallen to a greater extent than in former years on the stock kept by the department in its depôts, owing partly to the Sikkim supplies having been less and to private dealers having withdrawn from the charcoal trade to a considerable extent, and in Gunduck drift works having been more energetically pushed on. In bamboos the decrease is principally in Palamow, where operations have not been carried out to the extent contemplated in the sanctioned plan for the year, and the increase in minor produce is in Chota Nagpore, where attention has been again directed to the cultivation and collection of silk cocoons by departmental agency.

102. The system of dealing with firewood by the cord and charcoal by the bag instead of by weight has been extended to all the subdivisions of the Darjeeling Division, and its working during the last six months of the year has proved that under it, instead of a loss accruing, which cannot be checked and therefore leaves its amount practically to the option of the subordinate, who may be in charge of the depôt, there is actually a surplus on stock received. In the case of firewood this is mainly due to inferior packing by purchasers compared with that of men who work regularly in the depôts, and in charcoal to droppings from bags on their being moved about by hand.

103. *Direction Division.*—Under the energetic management of Mr. A. Campbell, Deputy Conservator, Oudh Circle, the Gunduck drift operations have been still further developed, though there is still great obstruction on the part of traders who view the interposition of an organised department of Government on the river to claim its just rights with disfavour. The Bengal share of timber brought on to stock during the year, including the previous year's balance, which was not brought on the books through oversight, is 10,963 cubic feet, and of firewood 19,423 cubic feet solid wood.

Under the Kusi Drift Rules the Collector of Bhagulpore reports that 23 drift timbers have been salved, but particulars of these and their contents are not given.

104. *Darjeeling subdivision.*—For use in departmental buildings 2,445 cubic feet of timber were worked out, and 332,527 cubic feet wood were brought out as fuel, of which 189,178 cubic feet were converted into charcoal. Dead wood and fallen trees have been as far as possible utilized in meeting these demands. Fifty-two bamboos and 1,552 maunds fodder were also brought out departmentally, the latter for the use of the Chinese Amban and his followers.

105. Owing to the supply of firewood to the Military Department being still carried out by weight, and not under the cord system by measurement, it is necessary to adhere to the former practice of dealing with it in this report by weight also. The receipts in sale depôts from the forests of this subdivision were 78,541 maunds firewood and 23,365 bags charcoal, and the sales 71,815 of the former and 24,933 of the latter, as well as 168 maunds charcoal dust: 2,750 maunds firewood and 3,919 bags charcoal have also had to be written off during the year owing to former and current years' losses, but credit is taken during that period for 575 maunds firewood and 47 bags charcoal found excess on stock taking in depôts; also of 168 maunds dust collected and sold. Firewood 303 maunds and charcoal 946 bags were sold locally in the forests.

106. The demand for fuel was as follows, compared with the previous year:—

	Firewood.		Charcoal.	
	1888-89.	1889-90.	1888-89.	1889-90.
	Mds.	Mds.	Bags.	Bags.
Commissariat Department	55,000	40,000	190	22
Public Works Department, Military Works ...	324	20	182	...
Ditto, Civil Works ...	...	...	...	52
Jail Department	1,410	3,013	...	...
Total Public Departments	56,734	43,033	372	74
General public	17,680	28,782	10,012	24,859
Total sales from sale depôts ...	74,414	71,815	10,384	24,933

In addition to the above, 4,938 bags of charcoal from the Teesta and Kurseong subdivisions were sold in Darjeeling to the general public.

The sales of firewood are somewhat less than in the previous year, while including these latter the demand for charcoal has nearly trebled. Owing to defalcations in stock the supply of charcoal in the Darjeeling depôts at one time ran out. The Conservator would here record his appreciation and that of the officers of the department of the kindness of many of the Tea Planters in the Darjeeling district who came forward with loans from their own stocks, and thus enabled the department to obviate a temporary charcoal famine, which would have caused serious inconvenience to the residents of Darjeeling.

107. *Teesta subdivision.*—In fuel 30,464 cubic feet were worked out: of this the equivalent of 12,110 cubic feet was brought to the Darjeeling depôt as charcoal and sold, and the equivalent of 18,095 cubic feet was sold locally.

108. *Kurseong subdivision.*—Timber—5,388 cubic feet were brought out, chiefly in thinnings, and 3,587 cubic feet were sold locally. The equivalent of 34,029 cubic feet was worked out in fuel, chiefly charcoal, to assist the Darjeeling station supply, of which 23,968 were brought to depôt and 22,456 sold, while the equivalent of 3,801 cubic feet was burnt accidentally in a forest fire, and 6,475 cubic feet were sold locally as firewood.

109. *Julpigori subdivision.*—In timber 3,349 cubic feet were brought out, including 574 cubic feet drift timber, and 7,205 cubic feet (solid) drift fuel were collected and brought to depôt. In sale depôts 3,022 cubic feet timber were received and 2,829 cubic feet sold, while the equivalent of 6,286 cubic feet solid wood was sold from depôts.

110. *Buxa subdivision.*—The department worked out 9,212 cubic feet timber. The receipts in depôts were 4,493 cubic feet and the sales 3,824, while 4,493 cubic feet were sold locally. The tusks of an elephant that died, giving 96lbs. of ivory, were also brought on stock and sold for Rs. 600.

111. *Palamow subdivision.*—Bamboos, 699,125, were received in depôts and 500 ropes, and sales were effected of 1,057,062 bamboos and 100 ropes, while 1,000 bamboos were also sold locally and 61,117 had to be written off as lost and useless: 4,432 maunds of minor produce were also collected and sold locally.

112. *Hazaribagh subdivision.*—Silk cocoons, 1,041, were collected, and 2,850 sold.

113. *Singbhoom subdivision.*—Timber—5,220 cubic feet were brought out, and the equivalent of 9,688 cubic feet (solid) fuel, 9,968 bamboos and 98 maunds minor produce. The sales from depôts and locally were—Timber 5,891 cubic feet; fuel equivalent of 7,560 cubic feet solid wood; bamboos 8,192; minor produce 164 maunds.

114. *Sunderbuns Division.*—Timber, 1,396 cubic feet, and fuel, 2,872 cubic feet, were received by confiscation. The sales were 326 cubic feet timber and 999 cubic feet firewood.

115. *Chittagong Division.*—From the reserves 1,248 cubic feet timber and 525 cubic feet solid fuel, and from the unclassed forests 15,709 cubic feet timber as well as 3,960 bamboos and 164 maunds minor produce, were collected chiefly as drift and confiscated. The sales from depôts were—5,688 cubic feet timber, 634 cubic feet fuel, 3,960 bamboos, and 287 maunds minor produce, chiefly drift.

116. *Orissa Division.*—From the forests of this Division 421 cubic feet timber and 1,638 cubic feet solid fuel were worked out. The receipts in depôts were 1,692 cubic feet timber and 1,640 cubic feet fuel; the sales 1,521 of the former and 1,239 of the latter, as well as 300 bamboos.

2.—Removal of Produce by Purchasers.

117. The outturn is as follows, including drift, &c., the figures being taken from the abstracts at foot of Forms Nos. 54 and 55:—

	Timber.	Fuel.	Total wood.	Bamboos.		Minor forest produce, including fodder.	
	C. ft. solid.	C. ft. solid.	C. ft. solid.	No.	Gross value. Rs.	Mds.	Gross value. Rs.
Reserved forests ...	9,506,034	11,056,500	20,562,434	4,850,213	15,808	37,92,714	67,202
Protected ,, ...	248,615	3,289,451	3,538,066	217,285	422	8,05,951	10,879
Unclassed, &c., forests	417,347	447,725	865,072	10,211,142	28,221	2,00,270	9,387
Total 1889-90 ...	10,172,896	14,793,676	24,966,572	15,278,640	44,541	48,58,935	87,468
Total 1888-89 ...	8,999,713	14,399,723	23,399,435	14,607,718	42,886	48,46,769	81,293
Difference { More ...	1,173,184	393,953	1,567,137	670,922	1,655	.....	6,175
in 1889-90 { Less ...	.....	.....	.....	.....	...	87,834	...

118. In timber the increase was—from reserves, 1,040,377 cubic feet, which is almost exactly accounted for in the Sunderbuns Division; there was also an increase in the demand on the forests of the Julpigori Division of over 100,000 cubic feet, which is counterbalanced by short demand in other Divisions; from protected forests, 10,922 cubic feet, chiefly in the Sunderbuns and partly in Orissa; from unclassed forests, 121,885 cubic feet, both in Chittagong and Orissa.

In fuel the difference is thus accounted for—from reserves the outturn increased by 213,898 cubic feet solid wood, the demand on the Julpigori subdivision by planters having improved by 638,817 cubic feet, and on Darjeeling subdivision by about 37,000 cubic feet, while there was a slight improvement in Chota Nagpore; other Divisions and subdivisions, chiefly the Sunderbuns, show a falling off owing to fluctuation of demand; from protected forests the demand was less by 89,965 cubic feet, there being a falling off of 371,253 cubic feet in Orissa and an increase of 281,288 cubic feet in the Sunderbuns; from unclassed forests the increase is 270,020 cubic feet, the demand on Singbhoom having nearly doubled and on Chittagong nearly quadrupled compared with the previous year.

In bamboos there is an increase in demand from reserves of 1,277,538 principally in Chittagong, where the unclassed forests were less resorted to, the outturn from them being 724,717 less than in the previous year, while the sales in Singbhoom increased by 1,925. The demand on the Orissa protected forests increased by 116,176: thus the net increase on all forests was 670,922.

In minor produce (including fodder) there is a net decrease of 87,834 maunds in the estimated quantity removed. The demand on the reserves increased by 2,90,914, which, with minor fluctuations in other Divisions (except Orissa, where there is a large decrease owing to the forests being opened to the poorer classes), is accounted for by the revival of demand on the Sunderbuns forests; on the protected forests there is a net decrease of 3,83,298 maunds, the increase of

44,514 in the Sunderbuns being more than counterbalanced by the decrease of 4,27,812 maunds in Orissa, due to causes indicated above; on the unclassed forests the demand increased by 4,550 maunds, there being a small decrease in Chittagong and an increase in Singbhoom.

119. In the Darjeeling Division a most useful and long-needed improvement has been introduced in the interests of the future of the forests, namely, the selection and marking of all growing trees for felling by gazetted officers, instead of as formerly by Range officers, who, with very few exceptions, in order to save themselves trouble, would mark almost any tree selected by a purchaser, whether for sylvicultural reasons the tree should be felled or not. This has of course thrown a very large amount of extra work on the subdivisional officers, and the Conservator has great satisfaction in recording the cheerful and energetic manner in which Messrs. Rogers, Haines, Lovegrove and Quinnell have exerted themselves in carrying out this improved system. They have also commenced the marking of trees available for felling from which purchasers can select as well as those reserved as standards or seed-bearers, and registers in which the trees are recorded have also been opened.

120. The following table gives the + and — differences of the outturn and demand for timber and fuel of purchasers on the forests in the several divisions and subdivisions for the year 1889-90 compared with 1888-89; also the number of bamboos and quantity of minor forest produce removed in 1889-90, with the gross value of the same, and the net difference in receipts for the two years:—

	Timber, cubic feet.		Fuel, c. ft. solid wood.		Bamboos.			Minor produce, excluding fodder.		
	1889-90.	+ or —	1889-90.	+ or —	1889-90.		+ or —	1889-90.		+ or —
					No.	Gross value Rs.	Net. Rs.	Mds.	Gross value Rs.	Net. Rs.
Reserved Forests.										
Darjeeling Division ...	...	...	...	...	...	.....	...	19	323	−462
Ditto subdivision ...	140,007	−3,836	292,039	+37,019	475,684	403	+134	3,997	180	−136
Teesta ditto ...	97,937	−15,120	149,058	−68,584	138,280	1,128	+275	5,234	423	+23
Kurseong ditto ...	89,478	−80,914	215,343	−86,543	53,012	1,926 *126	+34	10,282	336	−49
Julpigori ditto ...	65,041	+14,602	733,980	+638,817	...	.....	−4	10,302	219	−41
Buxa ditto ...	105,219	+87,297	2,571	−4,590	1,575	21	+4	5,192	143	−70
Palamow ditto ...	...	...	...	−448	3,038	10	−32	2,206	323	+144
Hazaribagh ditto ...	3,201	+2,646	15,916	+8,510	23,360	175	−207	9,610	1,137	−136
Singbhoom ditto ...	19,065	−12,055	54,458	+1,314	31,390	137	−9	8,929	476	+98
Sunderbuns Division ...	8,986,152	+1,049,692	9,560,616	−304,360	...	.....	...	35,59,044	63,983	+7,955
Chittagong ditto ...	381	−918	...	...	3,424,565	10,274	+2,809	8,612	1,969	+566
Orissa ditto ...	453	−1,017	22,619	−7,257	699,303	1,824	+404	21,613	248	−353
Total ...	9,506,934	+1,040,377	11,056,500	+213,898	4,850,213	15,898 *126	+3,408 +120	36,45,010	68,866	+7,539
Protected Forests.										
Sunderbuns Division ...	244,380	+8,428	950,489	+291,288	...	.....	...	3,33,296	5,664	−374
Orissa ditto ...	4,035	+2,494	2,338,963	−371,253	217,285	422	−191	5,32,655	1,154	−1,014
Total ...	248,615	+10,922	3,289,451	−89,965	217,285	422	−191	8,65,951	6,818	−1,388
Unclassed, &c., Forests.										
Singbhoom subdivision ...	58,265	+47,355	209,525	+102,343	1,925	10	+10	9,887	123	+113
Chittagong Division ...	359,082	+64,530	238,200	+167,677	10,209,217	22,258 †5,953	−2,608	1,90,383	7,035 †2,229	−1,306
Total ...	417,347	+121,885	447,725	+270,020	10,211,142	22,268 †5,953	−2,598	2,00,270	7,158 †2,229	−1,193
GRAND TOTAL ...	10,172,896	+1,173,184	14,793,676	+393,953	15,278,640	*126 38,588 †5,953	+120 +619	47,11,231	82,842 †2,229	+4,956

* Previous year's outstanding realized, Rs. 126.

† Deducted from revenue credited as Maharajah of Hill Tipperah's share for 1888-89 of Fenny toll-collections in Chittagong, Rs. 5,953 + Rs. 2,229 = Rs. 8,182.

121. In fodder the estimated quantity and value for 1889-90 and 1888-89 was as follows :—1,47,704 maunds=Rs. 2,397, and 1,13,865 maunds=Rs. 1,687.

The gross difference in the value of bamboos at head of this section is shown as Rs. 1,655 more; the *net* difference in revenue credited is Rs. 745 more, the excess Rs. 910 being the differences between the Maharajah of Hill Tipperah's share and outstandings due and realized for the two years.

The gross difference in the value of minor forest produce (including fodder) in the summary is Rs. 6,175 more; the *net* difference in revenue credited is Rs. 4,956, to which must be added Rs. 710 more received for fodder and Rs. 509 more paid as the Maharajah of Hill Tipperah's share than in the previous year.

3.—Free Grants of Forest Produce.

122. The following is the classification of free grants given during the year, abstracted from Forms Nos. 54 and 55 :—

	Timber.	Fuel.	Total wood.	Bamboos.		Minor forest produce.	
	C. ft. solid.	C. ft. solid.	C. ft. solid.	No.	Value Rs.	Mds.	Value Rs.
Reserved forests	16,130	1,002,140	1,018,270	21,140	57	74,516	2,377
Protected ,, ...	2,069	3,500,000	3,502,069	3,302,000	6,191	20,29,738	49,271
Unclassed, &c., forests	3,540	.....	3,540	3,000	9	333	8
Total 1889-90 ...	21,739	4,502,140	4,523,888	3,326,140	6,257	21,04,587	51,656
Total 1888-89 ...	18,060	4,001,489	4,019,549	3,781,610	7,092	38,10,210	89,210
Difference in 1889-90 { More	3,679	500,650	504,339	.....	.....	.....	.....
{ Less	.....	.....	.....	455,470	835	17,05,623	37,554

123. The grants are thus distributed :—Timber, 21,739 cubic feet; approximate value Rs. 7,000. From the reserved forests the following grants were made :—Darjeeling subdivision, 750 cubic feet to the Deputy Commissioner for repairs of frontier bungalows; Teesta subdivision, 100 cubic feet to the Postal Department; Kurseong subdivision, 750 cubic feet for repairs to road cess bridges and roads used by the department; Buxa subdivision, 2,100 cubic feet to Road Cess Department and to villagers for assistance rendered in fire protection and clearing boundaries; Singbhoom subdivision, 10,000 cubic feet to residents in privileged villages near Saitba forest; and Orissa Division, 2,430 cubic feet to ryots of Government for repairs to their houses. From the protected forests in Orissa, 2,069 cubic feet were granted for similar reasons; from the unclassed forests in Singbhoom, 3,160 cubic feet were granted on the Deputy Commissioner's order, and 380 cubic feet in Chittagong for use of the Police Department.

Fuel, 4,502,149 cubic feet solid wood, approximate value Rs. 11,500. From the reserved forests, Darjeeling subdivision, 32 cubic feet to the Ishapore Gunpowder Factory for experimental purposes; Teesta subdivision, 1,260 cubic feet to mandals of Government villages; Singbhoom subdivision, 1,000,000 cubic feet to Saitba privileged villages, and Orissa Division, 857 cubic feet to Government ryots. From the Khorda subdivisional protected forests it is estimated that 3,500,000 cubic feet were removed for their own use and for sale by ryots of the estate under the relaxed rules.

Bamboos, 3,326,140 ; valued at Rs. 6,257. Orissa Division, Reserved forests, 21,140, to ryots and others on the Government estates, and Protected forests, 3,302,000, under executive order of Government. From the Chittagong Unclassed forests, 3,000 were granted for use by the police.

Minor produce, 21,04,587 maunds; estimated value Rs. 51,656. From the Reserved forests, Buxa subdivision, 767 maunds to villagers for assisting in fire protection, &c.; Orissa Division, 73,749 maunds, in edible roots and fruits, &c., to distressed ryots; and from the Protected forests, 20,29,738 maunds. In the Chittagong Division 333 maunds of cane and sunn-grass were granted to the police from the Unclassed forests.

124. Grazing concessions were granted under Government orders to the estimated aggregate value of Rs. 1,02,125 in the Teesta subdivision and Orissa Division, and the total value of all free grants for the year is estimated at Rs. 1,78,538.

4.—Summary of Produce removed from the Forests.

125. The total outturn of the year, including confiscated, &c., wood and produce, is given in the following summary, which has been compiled from

the abstracts at foot of Forms Nos. 54 and 55, the figures of 1888-89 being also given for purposes of comparison:—

Class of forest, and of agency employed.	Timber.		Fuel.		Bamboos.		Minor forest produce.	
	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.
Reserved Forests.	C. ft. wood.	C. ft. wood.	C. ft. wood.	C. ft. wood.	No.	No.	Mds.	Mds.
By Government agency	25,291	64,298	418,948	283,206	615,747	1,028,221	6,148	40
,, Purchasers	9,506,934	8,466,557	11,050,500	10,842,604	4,850,213	3,572,675	37,93,714	35,01,800
,, Free grants	16,130	15,401	1,002,149	1,001,321	21,140	1,200	74,816	5,165
,, Right-holders	...	...	...	...	...	...	...	...
Total ...	9,548,355	8,546,256	12,477,597	12,127,129	5,487,100	4,602,096	38,73,378	35,07,005
Protected Forests.								
By Government agency	388	20	...	...	...	...	...	8
,, Purchasers...	248,615	237,683	3,289,451	3,379,416	217,285	101,100	8,65,951	12,49,249
,, Free grants	2,069	2,659	3,500,000	3,000,168	3,302,000	3,780,410	20,29,738	38,05,045
,, Right-holders	...	...	...	...	...	..	...	...
Total ...	251,072	240,372	6,789,451	6,379,584	3,519,285	3,881,519	28,95,689	50,54,302
Unclassed State Forests and Waste Lands.								
By Government agency	18,494	14,295	10,423	12,701	8,060	...	164	11
,, Purchasers	417,347	295,402	447,726	177,705	10,211,142	10,933,034	2,00,270	1,95,720
,, Free grants...	3,540	...	...	...	3,000	...	333	...
,, Right-holders	...	...	...	...	...	...	...	...
Total ...	439,381	309,757	467,148	190,406	10,218,102	10,933,034	2,00,767	1,95,731
Grand total outturn ...	10,238,808	9,096,385	19,734,196	18,697,119	19,224,487	19,417,549	69,69,834	87,57,038
In 1889-90 { Increase	1,142,423	...	1,037,077	...	...	...	...	...
{ Decrease	...	...	...	...	193,062	...	17,87,204	...
				Grand total value ...	Rs. 54,030	Rs. 60,101	Rs. 1,40,648	Rs. 1,71,021
				In 1889-90 { Increase ...	...	...	...	...
				{ Decrease ...	6,071	...	30,373	...

126. The outturn of wood in timber and fuel was 29,973,004 cubic feet solid—an increase of 2,179,500 on that of 1888-89, in which year the outturn was 27,793,504. The variation in wood, as well as in bamboos and minor forest produce, has been explained in the preceding sections of this chapter.

CHAPTER V.—FINANCIAL RESULTS.

127. The following is the comparison of the financial results for the last five years, so far as those for 1889-90 are known. The figures for 1888-89 differ from those given in paragraph 142 of the report for that year, as intimation was received in November 1889 from the Audit office that certain additions had been made for survey operations in Angul:—

	Receipts.	Charges.	Surplus.	Surplus to gross revenue.
	Rs.	Rs.	Rs.	Per cent.
1885-86 ...	5,97,432	3,70,399	2,27,033	38·0
1886-87 ...	6,53,634	4,22,781	2,30,853	35·3
1887-88 ...	6,57,794	3,90,368	2,67,426	40·7
1888-89 ...	6,76,907	3,75,471	3,01,436	44·5
1889-90 ...	7,68,718	3,90,265	3,78,453	49·2

The surplus is better by Rs. 77,017, the actual receipts being Rs. 91,811 in excess, and the charges Rs. 14,794 more than those of 1888-89. These are the largest receipts and the best surplus that have been recorded since the Department was formed in Bengal.

128. In receipts there is an improvement on the previous year's working in the following divisions:—Direction, Rs. 2,665; Darjeeling, Rs. 13,963; Julpigori, Rs. 28,683; Chota Nagpore, Rs. 2,492; Sunderbuns, Rs. 49,182: the following show worse results:—Chittagong, Rs. 1,866; Orissa, Rs. 3,308. These latter, which are slight in Chittagong, are due to the continued disturbed state of the Hill Tracts which has for the past few years affected the financial results of the Department; in Orissa they are less than might have been expected under the concessions made by Government for the relief of the people affected by the previous year's scarcity.

Under charges there is an increase of Rs. 14,794, made up of Rs. 2,713 under "A—Conservancy and Works" and Rs. 12,081 under "B—Establishments." The former is due to variations in all heads, the increase in charges chiefly on fuel works in Darjeeling and purchase of boats for patrol purposes in the Sunderbuns being nearly met by reductions in all other heads. The latter is caused by increases under "Salaries" of Rs. 9,785, and "Travelling allowances" of Rs. 2,454, owing to the presence of a greater number of officers on duty, both superior and subordinate; under "Contingencies" there is a small decrease of Rs. 158.

The net difference in value of timber, &c., and stores, as shown in Form No. 57, is Rs. 1,948 in favour of the year.

129. The following is the distribution of receipts and charges under the main heads, as per Form No. 62:—

	Departmental operations.	Other revenue.	Formation, protection and improvement of forests.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	87,776	6,80,942	...	7,68,718
Charges	70,725	1,50,480	1,69,060	3,90,265
Surplus	17,051	5,30,462	...	3,78,453
Deficit	...	...	1,69,060	...

The departmental operations show an improvement in surplus by Rs. 9,715; the surplus is contributed to by all Divisions except Chittagong and Orissa; in the former the deficit is due to the small transactions in drift timber during the year, and in the latter to the continued opening of the forests to traders affecting the demand on depôt stocks.

Under *Other revenue* the surplus is Rs. 62,118 better than in the previous year. The following Divisions contributed to this improvement:—Julpigori Rs. 22,377 and Sunderbuns Rs. 50,412, and the following show a falling off:—Direction, Rs. 3; Darjeeling, Rs. 5,621; Chota Nagpore, Rs 509; Chittagong Rs. 1,582; while in Orissa the surplus of Rs. 2,456 under this head has become a deficit of Rs. 500. In Darjeeling there was less demand both for timber and fuel by purchasers from the forests of the Teesta and Kurseong subdivisions; in Chota Nagpore there was practically no variation in the demand, the railway authorities and their contractors having continued to work private forests as much as possible; in Chittagong less timber and minor produce were brought out than in the previous year, presumably owing to remunerative wages being obtainable with the field force in the Hill Tracts; while in Orissa remission of house license fees in Khorda and the free grant of the run of the forests for firewood and minor produce reduced the revenue under those sub-heads by Rs. 3,185.

Under *Formation, Protection and Improvement of Forests* the expenditure is Rs. 5,184 less than that of 1888-89, after Rs. 7,302. are added to the charges of that year as ordered by the Audit office for survey charges. Similar charges will probably be eventually added this year on account of Imperial surveys in Julpigori and Angul. The charges under working plans increased by Rs. 7,949, owing to the pay of a Deputy Conservator being charged to that Division throughout the year; in Julpigori by Rs. 3,350, under share of establishment charges; in Sunderbuns by Rs. 2,352 on account of purchase of new patrol boats, and in Chittagong by Rs. 1,160, partly on plantations and partly in share of establishments. In other Divisions there were general savings under all heads.

CHAPTER VI.—GENERAL REMARKS.

130. Remarks concerning the services of Gazetted Officers will be found in Appendix D.

131. Rules for the Kusi river and its channels, within the districts of Bhagulpore and Purneah, as regards drift timber, under section 51 of the Indian Forest Act, were promulgated in a notification dated 8th July 1889, and the notification of 13th of that month declared the Collector of the Bhagulpore district and the subdivisional officers of Soopole and Muddepura to be vested

with the powers of Forest officers under section 2 of the Act, for the purpose of carrying out the rules.

132. By a notification under section 75 (*c*) of the Act, dated 4th September 1889, the felling of trees in the settled lands of the unleased portions of the khas mehals situated in the Regulation District of Chittagong is prohibited without the previous permission of the Collector.

133. The rules, under section 75 (*b*) of the Act, for the grant of rewards to non-gazetted officers and others for assistance rendered in the conviction of offenders against the forest laws, originally published in the notification dated 23rd October 1880, were revised by the notification of 23rd September 1889. The alteration in the rules renders a reference to the Forest officer necessary by Magistrates, and leaves it to him to allot the proportion in which rewards should be granted in cases where convictions are obtained in court.

134. The conditions on the reverse of the form of permit in use in the Sunderbuns Division, which have the force of law under the provisions of section 77 of the Indian Forest Act, originally promulgated in the notification of 5th May 1885 under sections 31 and 41, have been revised by the notification dated 10th December 1889. The revision provides for boats being brought to one or other of the revenue stations when loaded, for the purpose of the produce on board being measured and checked; for logs not being slung more than two deep under water on the boats; and for the production of the certificate attached to the permit, so as to enable the measurement of boats and the produce loaded on them to be checked by revising officers. These modifications have been found a great assistance in the controlling of produce removed from the Sunderbuns forests, and in the realization of Government dues on the same.

FORM No. 49.

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1889-90.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	Number and date of notification or transfer.	Remarks.
Darjeeling Subdivision.	Senchal ..	Darjeeling district.	Rinchintong Dhara, north block	17							* Blocks that have been regazetted for further enquiry into rights in the notification under section 4, dated 4th February 1890, comprising all forests in the Darjeeling district declared reserves in the notification under section 34, dated 23rd January 1879, and some of the subsequent additions to the same gazetted under section 19.
			Ditto, south do.	38							
			Rangnu* block ...	500							
			Senchal* do. ...	517	5		...	3,380	5		
			Dooteria* do. ...	534							
			Ranghul* do.	650							
			Sonada* do. ..	665							
			Pachim* do. ...	468							
	Mahalderam	Ditto	Chattackpur* do. ...	875							
			Seepoydura* do. ...	1,145	7	...	...	4,136	7		
			Mamrim* do. ..	1,216							
			Sureil* do. ...	900							
	Tukdah ...	Ditto	Rangirun* do. .	500							
			Dawaipani* do.	857							
			Rungjo* do. ...	1,100							
			Tiger Hill* do. .	755							
			Rangbi* do. ..	1,037	12			7,509	12		
			Rishap* do.	1,002							
			Poomong* do. ..	470							
			Hoom* do. ..	1,060							
			Tukdah* do.	668							
			Goom* do. ...	600							
			Nai* do. ...	839							
			Rishihat* do. ...	835							
			Tungsong* do ..	653							
			Poobong* do.	614							
	Goompahar ...	Ditto	Balasan* do. ..	811 (a)	14	...	...	9,245	14		(a) 10 a. 2 r. 16 p.
			Chongtong* do.	1,047							(b) 8 a. 2 r. 16 p. included in areas here given were made over to civil authorities for the Sukiapokri location under an executive order of Government dated 1st May 1889.
			Permanent* do.	1,284 (b)							(c) 3 a. 1 r. 17 p. included here made made over for Pashok Public Works bungalow site under an executive order of Government in August 1885.
			Palongdong* do. ..	931							
			Pogrambong* do. ...	960							
			Rungbong* do.	671							
	Singalila	Ditto ...	Little Rangit do.	2,087							
			Tonglu do. ...	1,993							
			Rilling do. ..	1,871							
			Salambong do.	2,600							
			Kankibong do.	2,789							
			Rithu do.	3,405							
			South Rimbick do. ...	4,126	64	..	...	41,254	64		
			North ditto do.	3,191							
			Sandukphu do. ...	3,660							
			Siri do.	3,857							
			Rumman do. ..	2,603							
			Suburkam do. ...	5,495							
			Phalut do. ...	3,617							
			Total .	65,533	102	..	...	65,533	102		
Terai Subdivision.	West Teesta .	Ditto	Rangit forest—								
			Badamtam* block .	569							
			Sumbong* do.	1,741	6						
			Seem* do.	312							
			Pashok* do.	1,011 (c)							
			Mangwa forest* . .	995	1½						
			Rainng do.—								
			Rangnu* block ..	1,265							
			Rainng* do. ...	1,697	6						
			Berrik* do. ..	1,122							
			Sitong forest—								
			Kundong* block	1,403		...	...	21,822	34		
			Sitikhola* do. ...	1,472	10						
			Numbong* do. ..	1,547							
			Sitong* do. ...	1,994							
			Sivoke Hills forest—								
			Andera* block ...	1,179							
			Ruyem* do. ...	1,091							
			Chawa* do	1,655	10½						
			Gola* do. ...	1,376							
			Upper Ghoramara* do.	1,303							
			Rilli forest—								
			Ionbu* block	1,650							
			Gooling* do	885	8						
			Nazeokh* do.	1,786							
			Tunang* do. ...	966							
			Kalimpong forest—								
			Comeyen* block ...	1,364							
			Rinkinpung* do. ...	1,553							
			Tashiding* do. ...	1,254	11½						
			Mongbur* do. ...	1,882							
			Balukop* do. ...	1,798							
			Dumsong forest—								
			Sungseer* block ...	2,983							
			Mangchu* do. ...	2,424							
			Rangpo* do. ...	1,871	22	...	...	40,738	64		
			Kashyom* do. ...	2,471							
			Eccha* do. ..	2,045							
			Dumsong* do.	2,038							
			Rissoom forest—								
			Paiengaon* block ...	1,110							
			Mayrong* do. ...	1,280							
			Rissoom* do. ...	484	9						
			Paktlaon* do. ..	1,620							
			Khempong* do. ...	1,336							
			Loolagaon forest—								
			Siehoor* block ...	1,725							
			Kuffeer* do. ...	1,456							
			Loolagaon* do. ...	1,530	13						
			Pemling* do. ...	1,225							
			Rokhim* do. ...	1,050							
			Chumung* do. ...	1,253							

FORM No. 49.

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1889-90—continued.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	Number and date of notification of addition or transfer.	Remarks.
Teesta Subdivision—*concluded.*	Pankasari ...	Darjeeling district.	Pankasari forest—								
			Kolhong block ...	2,806	16						
			Rushett do. ...	1,788							
			Labah do. ...	2,031							
			Pankasari do. ...	3,594							
			Rhenock forest	3,225	5						
			Rechi La forest—								
			Rechi La block ...	4,295(*d*)	17						(*d*) Three hundred acres included here made over to civil authorities for a settlement at Rechi La with effect from 1st April 1888, under executive order of Government.
			Thosum do. ...	2,967							
			Rooka do. ...	3,382							
			Mo forest	4,453	7						
			Jaldaka forest—								
			Cheechu block ...	2,304	23	...	...	65,152	102		
			Paren do. ...	3,380							
			Rongo do. ...	4,590							
			Khumani do. ...	4,600							
			Nar forest—								
			East Nar block ...	4,600	15½						
			West do. do. ...	5,493							
			Dalingkot forest—								
			Ambiok block ...	1,225	10						
			Dalingkot do. ...	2,106							
			Suckam do. ...	3,170							
			Mal forest	5,493	8½						
	Chel ...	Ditto ...	Mongpong forest ...	6,230	10	...	...	32,114	50		
			Leesh do. ...	4,287	7	...	...				
			Geesh forest—								
			Churonthi block ...	4,801	21	...	...				
			Ramthik do. ...	3,649							
			Lehti do. ...	5,280							
			Noam forest—								
			Noam block ...	3,705	12	...	6	...	...	7th June 1889	Actual area 5*a*. 2*r*. 38*p*. excluded from 1st April 1889.
			Pugo do. ...	4,164							
			Total ...	159,832	250	...	6	159,826	250		
Kurseong Subdivision.	Kurseong ...	Ditto ...	Dhobijhora forest*	589	1						
			Babukhola forest—								
			Babukhola block ...	1,320	3	...	...	2,872	5		* See remarks above.
			Majua do. ...	520							
			Sibakhola* forest ...	408	1						
			Paglajhora do. ...	35	...						
	Balasan ...	Ditto ...	Manjua* forest ...	1,112	2	...	...	10,617	17		
			Koohein* do. ...	514	1						
			Manjha forest—								
			Khairbani* block ...	1,984	6						
			Lohaguri* do. ...	584							
			Manjha* do. ...	1,510							
			Mechi forest—								
			Upper Mechi* block ...	236	5						
			Central do.* do. ...	504							
			Lower do.* do. ...	865							
			Nipania* do. ...	473							
			Kolabari* do. ...	494							
			Gurabadi* do. ...	528							
			Surjbur* do. ...	52							
			Balasan forest—								
			Balasan* block ...	671	3						
			Tarabari* do. ...	1,090							
	Terai ...	Ditto ...	Tukriajhar forest	1,364	2	...	...	9,784	15		
			Dalkajhar forest—								
			Khadma* block ...	250	9						
			Taipu* do. ...	430							
			Dalka* do. ...	664							
			Central* do. ...	590							
			Dauhara* do. ...	656							
			Bengdubi* do. ...	660							
			Moolta* do. ...	431							
			Lalfa* do. ...	622							
			Bishabari* do. ...	682							
			Bagdôora* do. ...	526							
			Harlia* do. ...	309							
			Pantapari forest—								
			Pantapari* block ...	755	4						
			Boiranti* do. ...	484							
			Tirihana* do. ...	489							
			Latua* do. ...	249							
			Borobhita* do. ...	623							
	Bamonpokri...	Ditto ...	Bamonpokri* forest ...	1,372	3	...	...	2,055	3		
			Rakti* do. ...	195							
			Lamagumba* do. ...	488							
	Sukna ...	Ditto ...	Sukna forest—								
			Sukna* block ...	1,262	7	...	...	8,966	14		
			Kuklong* do. ...	881							
			Chamta* do. ...	516							
			Adalpur* do. ...	422							
			Kynanuka do. ...	498							
			Rungdung* do. ...	774							
			Mahanadi forest—								
			Pundig* block ...	2,156	7						
			Mahanadi* do. ...	654							
			Mohurgong* do. ...	718							
			Hattisarra* do. ...	544							
			Panchanai* do. ...	461							

FORM No. 49.

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1889-90—continued.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	Number and date of notification of addition or transfer.	Remarks.
Kurseong Sub-division—*concld.*	Champasari ...	Darjeeling district ...	Champasari forest—								
			Gulma* block ...	469	5						
			Singimari* do. ...	824							
			Upper Champasari* do. ...	1,085							
			Lower ditto* do. ...	685							
			Choklong forest—								
			Lower Ghoramara* block ...	2,494	16						
			Gulma Valley* do. ...	1,670							
			Choklong* do. ...	2,080							
			Jogijhora* do. ...	1,287							
			Kuhil* do. ...	1,326							
			Bandarjhola* do. ...	1,287		...	...	21,325	33		* See remarks above.
			Latpanchor forest—								
			Mana* block ...	2,302	5						
			Latpanchor* do. ...	1,193							
			Sivoke forest—								
			Jamaikuri* block ...	1,338	7						
			Samardanga* do. ...	861							
			Sivoke, north* do. ...	644							
			Do., east* do. ...	690							
			Do., west* do. ...	686							
			Shilibhita* do. ...	404							
			Total ...	55,539	87	...	...	55,539	87		
Julpigori Sub-division.	Apalchand ...	Julpigori district ...	Apalchand forest—								
			Guzlidubi block ...	8,312	30						
			Rajadanga do. ...	6,986							
			Cheugmari do. ...	3,200							
			Malhati do. ...	310							
			Kyranti do. ...	53							
	Tondu ...	Ditto ...	Tondu forest—								
			North Tondu block ...	7,740	85						
			Upper do. do. ...	21,480							
			Lower do. do. ...	25,240		...	...	54,460	85		
	Muraghat ...	Ditto ...	Dainah forest ...	15,360	24						
			Muraghat do. ...	10,880	17						
			Rehti do. ...	2,923	4	...	...	31,003	48		
			Goshalhat do. ...	1,840	3						
	Falakata ...	Ditto ...	Dulgaon forest ...	1,375	2						
			Dumchi do. ...	3,062	5						
			Khairbari do. ...	1,775	3	...	...	14,019	22		
			Teesti do. ...	7,795	12						
			Salbari do. ...	12	...						
			Total ...	118,343	185	...	...	118,343	185		
Buxa Sub-division.	Borojhar ...	Ditto ...	Borojhar forest ...	35,200	55						
			Butri do. ...	1,400	2						
			Gabur Basra do. ...	6,400	10	...	...	44,100	69		
			Salkuer do. ...	1,100	2						
	Buxa ...	Ditto ...	Buxa forest—								
			Raimatong block ...	5,136	145						
			Poro do. ...	10,000							
			Rajabhatkawa do. ...	30,091		...	...	92,507	145		
			Panbari do. ...	21,120							
			Hill forests do. ...	20,160							
	Haldibari ...	Ditto ...	Raidak forest ...	12,800	20						
			Dhumpara do. ...	7,040	11	...	...	32,640	51		
			Bholka do. ...	12,800	20						
			Total ...	169,247	265	...	...	169,247	265		
Palamow Sub-division.	Northern ...	Lohardugga district.	Kechki forest ...	440	1						
			Betlah do. ...	6,847	10						
			Kedh block, Saidope do. ...	6,400	10						
			Saidope do. ...	21,120	33						
			Tungari do. ...	5,715	9						
			Ramundag do. ...	10,880	17	...	...	63,438	99		
			Kumandi do. ...	8,960	14						
			Chatum do. ...	855	1						
			Peuree do. ...	1,523	3						
			Ooreeya do. ...	698	1						
	Southern ...	Ditto ...	Seemah do. ...	20,240	80	...	...	56,951	89		
			Barasand do. ...	30,711							
			Total ...	120,389	188	...	...	120,389	188		
Hazaribagh Sub-division	Ranchi ...	Lohardugga district.	Horhap forest ...	1,098	2	...	...	1,098	2		
	Kodorma ...	Hazaribagh district.	Kodorma do. ...	29,767	46	...	...	29,767	46		
			Total ...	30,865	48	...	...	30,865	48		

FORM No. 49.

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1889-90—continued.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded on transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	Number and date of notification of addition or transfer.	Remarks.
Singbhoom Sub-division.	Saranda ...	Singbhoom district.	Saranda forest—								
			Ambia block ...	19,600	314	...	...	201,110	314		
			Gatkori do. ...	16,000							
			Kurumpoda do. ...	31,150							
			Kodolibad do. ...	15,360							
			Tholokbad do. ...	29,400							
			Tirilposi do. ...	35,200							
			Samtia do. ...	19,200							
			Ankua do. ...	35,200							
	Chyebassa ...	Ditto ...	Saitba block ...	18,560	29	...	...	64,640	101		
			Santara do. ...	40,080	72						
	Kolhan ...	Ditto ...	Latua block ...	44,800	70	...	...	69,120	108		
			Leda do. ...	24,320	38						
	Porahat ...	Ditto ...	Porahat (Girga) block ...	...	...	16,640	...	132,480	207	5th February 1890.	Declared reserved forests from 1st March 1890.
			Birda do. ...	...	...	3,840					
			Songra do. ...	...	...	33,200					
			Kundrugutu do. ...	...	...	28,160					
			Bera do. ...	...	...	48,640					
			Total ...	334,870	523	132,480	...	467,350	730		
Sunderbuns Division.	Satkhira ...	Khulna district.	Satkhira forest ...	244,480	382	...	...	244,480	382		
	Khulna ...		Khulna do. ...	447,353	699	...	...	447,353	699		
	Bagirhat ...		Bagirhat do. ...	320,000	500	...	...	320,000	500		
			Total ...	1,011,833	1,581	...	...	1,011,833	1,581		
Chittagong Division.	Kassalong ...	Chittagong Hill Tracts.	Kassalong forest ...	488,320	763	...	...	488,320	763		
	Sitapahar ...		Sitapahar do. ...	7,020	11	...	...	7,020	11		
	Matamori ...		Matamori do. ...	160,640	251	...	...	160,640	251		
	Sunnoo ...		Sunnoo do. ...	93,180	145	...	...	93,180	145		
	Rinkheong ...		Rinkheong do. ...	137,570	215	...	...	137,570	215		
			Total ...	886,740	1,385	...	...	886,740	1,385		
Orissa Division, Angul Subdivision.	Tikarpara ...	Tributary Mehals of Orissa.	Tikarpara forest	103,040	161	...	...	103,040	161		
	Bagmunda ...	Ditto ...	Bagmunda do.	40,960	64	...	...	40,960	64		
	Durgapur ...	Ditto ...	Durgapur forest—								
			Durgapur block ...	8,320	55	...	...	35,200	55		
			Tabsda do. ...	2,720							
			Wontullia do. ...	2,400							
			Kotoda do. ...	6,720							
			Simlipoda do. ...	9,920							
			Konoloi do. ...	5,120							
			Total, Angul Subdivision ...	179,200	280	..	...	179,200	280		
Khorda Subdivision.	Dandimal ...	Pooree district.	Dandimal forest—								
			Churang block ...	1,330	44	...	...	28,329	44		
			Chandka do. ...	8,240							
			Barhapita do., I ...	9,080							
			Ditto do., II ...	1,920							
			Haripur do, ...	941							
			Jamjhari do. ...	300							
			Majana do. ...	435							
			Bhola do. ...	283							
			Daspur do. ...	452							
			Bharatpur do. ...	2,952							
			Rampur do. ...	1,125							
			Mendhasal do. ...	815							
			Bhagbatipur forest ...	456							
	Khorda ...	Ditto ...	Khorda forest—								
			Barunai Hill block ...	1,200	8	...	...	4,814	8		
			Panchgarh do. ...	1,760							
			Dandimal forest—								
			Jaimangal block ...	356							
			Nagapati do. ...	1,498							
	Banpur ...	Ditto ...	Banpur forest—								
			Arang block ...	6,840	32	...	...	20,601	32		
			Tamna do. ...	8,280							
			Katual do. ...	2,361							
			Bankar do. ...	3,120							
	Kuhuri ...	Ditto ...	Kuhuri forest—								
			Kuhuri block ...	2,120	10	...	...	6,400	10		
			Sulia do. ...	4,280							
			Total, Khorda Subdivision ...	60,144	94	...	...	60,144	94		
			Total, Orissa Division ...	239,344	374	...	...	239,344	374		
			GRAND TOTAL ...	3,192,536	4,988	132,480	0	3,325,009	5,195		

Form No. 49A.

FOREST DEPARTMENT, BENGAL.

Area of Protected Forests, 1889-90

Division.	Range	Civil District or Territory.	Name of Forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1890. Acres.	Area on 31st March 1890. Equivalent in square miles.	Number and date of notification or transfer.	Remarks.
Sunderbuns.	Diamond Harbour.	24-Perganahs district.	Diamond Harbour forest ..	340,731	533	..	.	340,731	533		
			Baripore do.	205,686	321	...	.	205,686	321	27th September and 20th December 1889.	Areas excluded transferred to civil authorities.
	Basirhat .	Ditto	Basirhat do. ...	647 270	1,011	...	1,884	645,386	1,008		
	Satkhira ...	Khulna district	Satkhira do. ..	15,300	24		..	15,300	24		
	Khulna ...	Ditto ..	Khulna do. .	30,407	48	..	14,288	16,119	25	28th June 1889	
			Total ...	1,239 394	1,937	.	16,173	1,223,222	1,911		
Orissa.	Dandimal ...	Pooree district	Dandimal forest ...	48,662	76	....	...	48,662	76		
	Khorda		Khorda do. ..	82,901	130	.		82,901	130		
	Hanpur .		Hanpur do. ...	61,687	96	...	...	61,687	96		
	Kuhuri ...		Kuhuri do.	16,618	26	...	..	16,618	26		
			Total ...	209,868	328		..	209,868	328		
			Grand Total	1,449 262	2,265*	..	16,172	1,433,090	2,239		

* Recorded as 2,265 square miles, the grand total acres in all forests being equal to more than 11,286 square miles.

Form No. 49B.

FOREST DEPARTMENT, BENGAL.

Unclassed State Forests and Waste Lands, 1889-90.

Chittagong Division	Chittagong Hill Tracts	Hill Tracts Unclassed for sts	State	2,581,420	4,033	...	...	2,581,420	†4,034	
Singbhoom Subdivision.	Singbhoom district.	Singbhoom Waste lands		...	...	...		...		Under general management of the Department for collection of revenue. Area unknown.
			Total	2,581,420	4,033	...		2,581,420	†4,034	

† Increased by 1 square mile, the grand total acres in all classes of forests being equal to 11 468 square miles

Form No 50.

FOREST DEPARTMENT, BENGAL.

Register of breaches of Forest Rules during 1889-90.

Forest Division or Subdivision		Cases pending from 1888-89.	New cases of the year: Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Disposed of during the year: Convictions Cases.	Convictions Persons.	Acquittals Cases.	Acquittals Persons.	Total Cases.	Total Persons	Cases pending at close of year.
Darjeeling Subdivision	A	...	..	22	14	3	39	39	32	40	5	51	37	91	2
	B	..		108	123	...	231	231	231	280	..	..	231	280	.
	C	..	2		...	...	2	2			...	...			
Total		.	2	130	137	3	272	272	263	320	5	51	268	371	2
Teesta Subdivision	A	..		2		...	2	2	2	5	...	.	2	5	...
	B			19	41	12	72	72	72	155	.	.	72	155	...
	C		4		...		4	4		...	..	.	.	...	..
Total		...	4	21	41	12	78	78	74	160			74	160	..
Kurseong Subdivision	A		..	1	1	2	4	4	3	18	1	5	4	23	.
	B		..	24	18	15	57	57	57	75	..		57	75	...
	C		5	..			5	5	..				.	.	..
Total		...	5	25	19	17	66	66	60	93	1	5	61	98	...

N.B.—A means cases taken into court.
B means cases disposed of under section 67 of the Indian Forest Act (VII of 1878).
C means undetected cases.

FORM No. 50..

FOREST DEPARTMENT, BENGAL.

Register of breaches of Forest Rules during 1889-90—concluded.

FOREST DIVISION OR SUBDIVISION.		Cases pending from 1888-89.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
									Convictions.		Acquittals.		Total.		
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Jalpigori Subdivision ..	A	...	5	1	..	1	7	7	3	3	3	5	6	8	1
	B	...	...	13	14	4	31	31	31	51	..	...	31	51	..
	C	...	14		1		15	15	...	...	..	...	...		...
Total ...		...	19	14	15	5	53	53	34	54	3	5	37	59	1
Buxa Subdivision	A	..	...	...	2		2	2	1	2	...	1	1*	3	1
	B		..	7	...		7	7	7	7	...	...	7	7	...
	C	.	1	...	...		1	1	..	...	...	.	...	...	...
Total ...			1	7	2		10	10	8	9	...	1	8	10	1
Palamow Subdivision ...	A	..	4	1	...	...	5	5	5	7	...	1	5	8	...
	B		..	18	1	...	19	19	19	*	...	...	19	*	...
	C		4	...	..	...	4	4	...	...	..		.	..	.
Total ...		.	8	19	1		28	28	24	7		1	24	8	...
Hazaribagh Subdivision ..	A	...	...			...		...		...	...	..	...	...	...
	B	..		3	3	...	6	6	6	10	...		.6	10	...
	C		1		...		1	1		..		...		...	
Total ...		...	1	3	3		7	7	6	10	..	..	6	10	.
Singbhoom reserves Subdivision,	A	.	2	1	...	.	3	3	2.	4	1	1	3	5	.
	B	..	.	7	1	...	8	8	8	12	..		8	12	...
	C	..		...			*	*	.	..	.	...	...	...	...
Total ...		..	2	8	1	.	11	11	10	16	1	1	11	17	
Singbhoom waste lands. Subdivision,	A	...	...	1	...	..	1	1	1	1	...		1	1	...
	B		...	...	..	..	.		...	..	..		..	..	...
	C		...	...	. .		...			...	..		..	...	
Total				1	...		1	1	1	1		...	1	1	...
Sunderbuns Division, reserves	A	...	...	5	...	6	13	13	8	13	4	18	12	31	1
	B	...	...	407	.	1,066	1,473	1,473	1,473	1,473	...	..	1,473	1,473	.
	C		..	...	..	...	...			...		..	.		...
Total ...		..	..	412	...	1,074	1,486	1,486	1,481	1,486	4	18	1,485	1,504	1
Sunderbuns Division, protected forests.	A	..	...	1	..	3	4	4	1	1	3	5	4	6	...
	B		...	186	.	346	532	532	532	532	...	...	532	532	...
	C	...	...	..			.			..					...
Total ...		...		187		349	536	536	533	533	3	5	536	538	.
Chittagong Division	A	2	...	6	...	1	7	9	4	7	4	15	8	22	1
	B		...	2	...	...	2	2	2	*		...	2	*	.
	C	...	...	...	...		...	...	...		...	...	...	...	...
Total ...		2		8	...	1	9	11	6	7	4	15	10	22	1
Angul Subdivision ...	A	1	...	4	1	4	9	10	8	17	1	4	9	21	1
	B	...	...	12	11	...	23	23	23	33	...	..	23	33	...
	C	...	...	...	...	..		...	...	..	..	..	...	...	...
Total ..		1	...	16	12	4	32	33	31	50	1	4	32	54	1
Khorda Subdivision, reserves	A	...	...	3	4	2	9	9	6	11	1	2	7	13	2
	B	...	1	16	19	...	36	36	36	124	...	...	36	124	...
	C	..	3	. .	...	...	3	3	...		...	...		...	...
Total ...		...	4	19	23	2	48	48	42	135	1	2	43	137	2
Khorda Subdivision, protected forests.	A	...	...	6	5	4	15	15	15	75	...	18	15	93	...
	B	...	...	24	3	..	27	27	27	56	...	...	27	56	...
	C	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Total ...		...		30	8	4	42	42	42	131	...	18	42	149	...
GRAND TOTAL ...	A	3	11	54	27	28	120	123	91	204	23	126	114	330	9
	B	...	1	846	234	1,443	2,524	2,524	2,524	2,808	...	...	2,524	2,808	...
	C	...	34	...	1	...	35	35	...	...	...	...	...	...	...

N.B.—A means cases taken into court.
B means cases disposed of under section 67 of the Indian Forest Act (VII of 1878).
C means undetected cases.
* Information wanting.

FORM No. 51.

FOREST DEPARTMENT, BENGAL.

Area of Forest Tracts protected from Fire during the dry season 1890, *to accompany Report fo* 1889 90.

DIVISIONS AND SUBDIVISIONS.	FOREST TRACTS.	Year in which protection commenced.	Area actually protected up to 31st May 1890.	DURING DRY SEASON OF 1890.			Cost during the season up to 31st May 1890.	REMARKS.
				Area attempted to be protected.	Failures.	Actually protected.		
	I.—Areas protected by isolation and other special measures.		Acres.	Acres.	Acres.	Acres.	Rs.	
Teesta Subdivision (Darjeeling Division).	West Teesta Range—							
	Rangit forest	1881-82	3,663	3,663	...	3,663	156	
	Mangwa do.	1881-82	995	995	...	995	55	
	Raisng do.	1885-86	4,085	4,084	183	3,901	85	
	Sitong do.	1879-80	6,416	6,416	...	6,416	70	
	Sivoke hills do.	1879-80	6,664	6,664	...	6,664	84	
	East Teesta Range (part)—							
	Rilli forest	1879-80	5,287	5,287	...	5,287	102	
	Kalimpong do.	1885-86	7,350	7,350	40	7,310	159	
	Pankasari Range (part)—							
	Jaldaka forest	1881-82	14,874	14,874	...	14,874	73	
	Nar do.	1881-82	10,093	10,093	...	10,093	62	
	Dalingkot do.	1881-82	6,561	6,561	...	6,561	62	
	Mal do.	1881-82	5,493	5,493	...	5,493	54	
	Chel Range—							
	Mungpong forest	1879-80	6,230	6,230	16	6,214	85	
	Leesh do.	1879-80	4,287	4,287	...	4,287	55	
	Geesh do.	1879-80	13,730	13,730	8	13,722	127	
	Noam do.	1879-80	7,873	7,867	...	7,867	55	
	Total ...	...	103,540	103,594	247	103,347	1,284	
Kurseong Subdivision (Darjeeling Division).	Balasan Range (part)—							
	Manjua forest	1882-83	1,112	1,113	...	1,112	76	
	Manjha do.	1879-80	4,078	4,078	30	4,048	138	
	Mechi do.	1884-85	2,821	3,152	104	3,048	256	
	Balasan do.	1884-85	1,760	1,761	...	1,761	96	
	Terai Range—							
	Tukriajhar forest	1882-83	1,364	1,364	...	1,364	102	
	Dalkajhar do.	1878-79	5,820	5,820	25	5,795	557	
	Pantapari do.	1878-79	2,600	2,600	...	2,600	469	
	Ramonpokri Range—							
	Ramonpokri forest	1876-77	1,372	1,372	...	1,372	273	
	Rakti do.	1876-77	195	195	...	195	99	
	Lamagumba do.	1876-77	488	488	9	479	68	
	Sukna Range—							
	Sukna forest	1876-77	4,353	4,353	110	4,243	567 19	Expended on special protection of Siligori rain tree plantation.
	Mahanadi do.	1876-77	4,533	4,533	3,500	1,033	245	
	Champasari Range—							
	Champasari forest	1876-77	3,063	3,063	...	3,063	134	
	Choklong do.	1876-77	10,144	10,144	...	10,144	110	
	Latpanchor do.	1876-77	3,495	3,495	...	3,495	8	
	Sivoke do.	1876-77	4,623	4,623	...	4,623	234	
	Total ...	...	51,821	52,153	3,778	48,375	3,451	
Julpigori Subdivision (Julpigori Division).	Apalchand Range—							
	Guzliduba block	1878-79	8,312	8,312	740	7,572	187	
	Rajadanga do.	1878-79	1,786	6,986	1,200	5,786	248	
	Chengmari do.	1878-79	2,790	3,200	1,320	1,880	157	
	Malhati do.	1878-79	310	310	...	310	5	
	Kyranti do.	1878-79	...	53	...	53	38	
	Tondu Range—							
	North Tondu block... ...	1878-79	7,740	7,740	...	7,740	170	
	Upper Tondu do.	1878-79	18,280	21,480	...	21,480	160	
	Lower Tondu do.	1878-79	24,240	25,240	348	24,892	283	
	Muraghat Range—							
	Daimah forest	1881-82	14,360	15,360	790	14,570	68	
	Muraghat do.	1872-73	10,380	10,880	710	10,170	116	
	Behti do.	1881-82	2,923	2,923	...	2,923	40	
	Goshaihat do.	1881-82	1,540	1,840	180	1,660	27	
	Falakata Range—							
	Dulgaon forest	1879-80	1,375	1,375	400	975	127	Includes Rs. 14 omitted in last year's return.
	Dumchi do.	1879-80	3,062	3,062	500	2,562	113	Includes Rs. 14 omitted in last year's return.
	Khairbari do.	1882-83	1,775	1,775	3	1,772	65	Includes Rs 13 omitted in last year's return.
	Teeti do.	1882-83	7,795	7,795	1,000	6,795	113	Includes Rs. 14 omitted in last year's return.
	Salbari do.	1882-83	12	12	...	12	34	
	Total ...	...	106,680	118,343	7,191	111,152	1,946	
Buxa Subdivision (Julpigori Division).	Borojhar Range—							
	Borojhar forest (part) sál tract.	1879-80	19,840	19,840	16	19,824	342	
	Butri forest	1888-89	1,150	1,400	...	1,400	96	
	Salkuer do.	1883-84	1,040	1,100	...	1,100	104 7	Extinguishing fire in Gabur Basra forest.
	Buxa Range—							
	Raimatong block... ...	1876-77	5,136	5,136	...	5,136		
	Poro do.	1876-77	16,000	16,000	5	15,995	1,547	
	Rajabhatkawa do.	1876-77	30,091	30,091	...	30,091		
	Panbari do.	1876-77	21,120	21,120	...	21,120		
	Haldibari Range—							
	Raidak forest (part) sál tract.	1882-83	7,500	7,500	...	7,500	254	
	Sholka forest	1877-78	12,800	12,800	200	12,600	181 4	Extinguishing fire in Dhumpara forest.
	Total ...	...	114,647	114,987	221	114,766	2,535	

FORM No. 51.

FOREST DEPARTMENT, BENGAL.

Area of Forest Tracts protected from Fire during the dry season 1890, *to accompany Report for* 1889-90—continued.

Divisions and Subdivisions.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 31st May 1889.	During dry season of 1890. Area attempted to be protected.	Failures.	Actually protected.	Cost during the season up to 31st May 1890.	Remarks.
	I.—Areas protected by isolation and other special measures—concluded.		Acres.	Acres.	Acres.	Acres.	Rs.	
Palamow Subdivision (Chota Nagpore Division).	Northern Range—							
	Kechki forest	1879-80	440	440	...	440	8	
	Betlah do.	1879-80	6,187	6,837	..	6,847	72	
	Saidopa do.	1879-80	27,520	27,520	2,560	24,960	90	
	Tungari do.	1880-81	5,715	5,715		5,715	117	
	Ramundag do.	1879-80	10,880	10,880	5,000	5,880		
	Kumandi do.	1879-80	8,960	8,960	3,200	5,760	93	
	Chatum do.	1885-86	855	855	..	855	32	
	Peeree do.	1885-86	1,523	1,523	...	1,523	26	
	Ooreeya do.	1885-86	698	698	...	698	21	
	Southern Range—							
	Seemah forest	1879-80	23,226	26,240	1,008	25,232	68	
	Barnaud do.	1879-80	16,707	30,711	10,530	20,181	101	
	Total ...	...	102,661	120,389	22,298	98,091	618	
Hazaribagh Subdivision (Chota Nagpore Division).	Koderma forest	1879-80	29,767	29,767	3,167	26,600	202	
Singbhoom Subdivision (Chota Nagpore Division).	Saranda Range—							
	Ambia block	1885-86	2,400	...	...	...	...	
	Gatkori do.	1887-88	12,000	...	...	...	...	
	Ankua do.	1884-85	23,000	...	...	...	...	
	Chyebassa Range—							
	Saitha forest	1884-85	2,587	...	...	...	...	
	Santara do.	1887-88	1,593	...	...	...	...	
	Kolhan Range—							
	Leda forest	1884-85	20,320	...	...	...	...	
	Porahat Range—							
	Birda block	1884-85	3,200	...	...	...	...	Proposed reserves in 1888-89.
	Girga do. ...	1887-88	16,040	...	...	..	...	
	Total ...	...	81,750	...	...			
Chittagong Division.	Strip of plantation	1889-90	...	..	...	..	25	Area not specified.
Angul Subdivision (Orissa Division).	Tikarpara Range ...	1884-85	101,440	103,040	...	103,040	849	
	Bagmunda do.	1884-85	40,780	40,960	40	40,920	353	
	Durgapur Range—							
	Durgapur block	1884-85	7,680	8,320	...	8,320	197	
	Tabada do.	1884-85	2,720	2,720	...	2,720	101	
	Wontullia do.	1884-85	2,400	2,400	...	2,400	88	
	Kotoda do. ...	1884-85	6,720	6,720	...	6,720	135	
	Simlipoda do. ...	1884-85	8,640	9,920	...	9,920	142	
	Komolai do.	1884-85	5,120	5,120	...	5,120	143	
	Total ...	...	175,500	179,200	40	179,160	2,008	
Khorda Subdivision (Orissa Division).	Dandimal Range—							
	Churang block ...	1885-86	1,330	1,330	...	1,330	110	
	Chandka do.							
	Barhapita do. No. 1	1885-86	19,194	19,240	10	19,230	552	
	Ditto do. ,, 2							
	Harirpur do.	1885-86	941	941	.	941	105	
	Jamjhari do.	1885-86	300	300	...	300	50	
	Majana do.	1885-86	433	435	...	435	104	
	Bhola do.	1885-86	283	283	...	281	28	
	Daspur do.	1885-86	452	452	...	452	82	
	Bharatpur do.	1885-86	2,949	2,952	1	2,951	105	
	Rampur do.	1885-86	1,125	1,125	...	1,125	33	
	Mendhasal do.	1885-86	815	815	1	814	38	
	Bhagbatipur do.	1887-88	456	456	...	456	62	
	Khorda Range—							
	Barunai Hill block ...	1885-86	1,200	1,200	...	1,200	115	
	Panchgarh do.	1885-86	1,650	1,760	...	1,760	129	
	Jaimangal do.	1885-86	356	356	...	356	55	
	Nagapati do.	1885-86	1,498	1,498	...	1,498	92	
	Banpur Range—							
	Arang block	1885-86	6,640	6,840		6,840	194	
	Tamna do.	1885-86	8,276	8,280	(a)1,802	6,478	365	(a) Burnt dry season 1889, but not then reported.
	Katual do.	1885-86	2,331	2,461	...	2,461	77	
	Bankar do.	1885-86	3,120	3,120	...	3,120	72	
	Kuhuri Range—							
	Kuhuri block	1885-86	2,120	2,120	...	2,120	111	
	Sulia do.	1885-86	4,280	4,280	...	4,280	173	
	Total ...	...	59,747	60,144	1,814	58,330	2,649	
	Total Head I ..	...	896,118*	778,577	38,756	739,821	14,728	
	II.—Areas protected by less extensive measures and by rules.							
Darjeeling Subdivision (Darjeeling Division).	Senchal Range	1881-82	3,389	3,389	...	3,389	1	
	Mahaldaram do	1881-82	4,136	4,136	...	4,136	8	
	Tukdah do.	1881-82	7,509	7,509	...	7,509	...	
	Goompahar do. ...	1881-82	9,245	9,245	...	9,245	...	
	Singalila do.	1882-83	41,254	41,254	121	41,133	108	
	Total ...	...	65,533	65,533	121	65,412	117	

* Includes 19,840 acres, proposed reserves, Singbhoom Subdivision, which were protected by special measures

Form No. 51.

FOREST DEPARTMENT, BENGAL.

Area of Forest Tracts protected from Fire during the dry season 1890, *to accompany Report for* 1889-90—concluded.

Divisions and Subdivisions.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 31st May 1889.	During dry season of 1890.			Cost during the season up to 31st May 1890.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
	II.—Areas protected by less extensive measures and by rules—continued.		Acres.	Acres.	Acres.	Acres.	Rs.	
Teesta Subdivision (Darjeeling Division).	East Teesta Range (part)—							
	Dumsong forest	1881-82	14,032	14,032	...	14,032	90	
	Rissoom do.	1881-82	5,830	5,830	2	5,828	80	
	Loolagaon do.	1881-82	8,239	8,239	...	8,239	94	
	Pankasari Range (part)—							
	Pankasari forest	1881-82	9,809	9,809	2	9,807	67	
	Rhenock do.	1881-82	3,225	3,225	...	3,225	31	
	Rechi La do.	1881-82	10,644	10,644	...	10,644	31	
	Mo do.	1881-82	4,453	4,453	...	4,453	8	
	Total ...	...	56,232	56,232	4	56,228	401	
Kurseong Subdivision (Darjeeling Division).	Kurseong Range—							
	Dhobijhora forest	1882-83	589	589	8	581	22	
	Babukhola do.	1882-83	1,840	1,840	...	1,840	45	
	Sivakhola do.	1882-83	408	408	...	408	8	
	Paglajhora do.	1885-86*	35	35	...	35	6	* Erroneously recorded as 1882-83 in three previous annual reports.
	Balasan Range (part)—							
	Koohein forest	1882-83	514	514	...	514	18	
	Total ...	...	3,386	3,386	8	3,378	99	
Hazaribagh Subdivision (Chota Nagpore division).	Ranchi Range—							
	Horhap forest	1886-87	1,098	1,098	...	1,098	1	
Singbhoom Sub-division (Chota Nagpore Division).	Saranda Range	1889-90	...	201,110	189,110	12,000	463	Many blocks had been attempted, under special measures in previous years.
	Chyebassa Range—							
	Saitba forest	1889-90	...	18,540	5,760	12,800	144	
	Santara do.	1889-90	..	46,080	36,480	9,600	77	
	Kolhan Range	1889-90	...	69,120	69,120	...	102	
	Porahat Range—							
	Girga block	1889-90	...	16,640	15,160	1,480	50	
	Birda do.	1889-90	...	3,840	2,470	1,370	54	
	Songra do.	1889-90	...	35,200	33,720	1,480	39	
	Kundrugutu do.	1889-90	...	28,160	20,870	7,290	21	
	Bera do.	1889-90	...	48,640	39,045	9,595	25	
	Total ...	...	...	467,350	411,735	55,615	975	
	Total Head II ...	...	126,249	593,599	411,868	181,731	1,593	
	Grand Total ...	...	952,362†	1,372,176	450,624	921,552	16,321	

† Includes 19,840 acres, proposed reserves, Singbhoom Subdivision, which were protected by special measures.

Form No. 52.

FOREST DEPARTMENT, BENGAL.

Area of Plantations, 1889-90.

Division or Subdivision.	Name of Plantation.	Area in acres.				Receipts of the year.	Charges of the year.	Remarks.
		On 1st April 1889.	Added during the year.	Excluded during the year.	Area on 31st March 1890.			
	Regular Plantations.					Rs.	Rs.	
Darjeeling Subdivision.	Senchal Range—							
	Ranghul block	281	...	...	281	...	253	
	Dooteria do.	335	30	...	365	...	357	
	Rangnu do.	139	...	...	139	...	117	
	Tukdah Range—							
	Rangirun block	40	1	...	41	...	263	
	Poomong do.	205	...	...	205	...	192	
	Goompahar Range—							
	Tungsong block	104	...	...	104	...	120	
	Goom do.	150	...	...	150	...	129	
	Total ...	1,254	31	...	1,285	...	1,411	
Kurseong Subdivision.	Dhobijhora block	13	...	...	13	...	...	
	Ditto, compartments 5 & 6	23	...	...	23	...	...	
	Ditto, ditto 1 to 4	27	...	...	27	...	...	
	Bamonpokri forest	477	...	...	477	...	71	
	Sukna block	7	...	...	7	...	...	
	Siliguri plantation	12	...	...	12	...	...	
	Chamta block, compartment 5	2	...	...	2	...	...	
	Ditto, ditto 1	115	...	...	115	...	...	
	Ditto, ditto 3	54	...	...	54	...	...	
	Kynanuka block, ditto 2	25	...	...	25	...	...	
	Adalpur do., ditto 2	52	...	...	52	...	...	
	Total ...	807	...	...	807	...	71	

FORM No. 52.

FOREST DEPARTMENT, BENGAL.

Area of Plantations, 1889-90—concluded.

Division or Subdivision.	Name of Plantation.	Area in acres. On 1st April 1889.	Added during the year.	Excluded during the year.	Area on 31st March 1890.	Receipts of the year.	Charges of the year.	Remarks.
	Regular Plantations concld.					Rs.	Rs.	
Julpigori Subdivision.	Falakata	3	...	...	3	...	...	
Chittagong Division.	Pahartalli	5	...	...	5	...	...	
	Sitapahar	583	30	...	613	...	3,652	
	Total ...	588	30	...	618	...	3,652	
Khorda Subdivision.	Barunai Hill	221	55	...	276	...	668	
	Chandmari	15	...	...	15	...	72	
	Santrapur	8	...	...	8	...	24	
	Total ...	244	55	...	299	...	764	
	Total Regular Plantations ...	2,836	116	...	3,012	...	5,898	
	Cultural Operations.							
Darjeeling Subdivision.	Mahalderam Range—							
	Sepoyddra block	24	...	...	24	...	97	
	Goompahar Range—							
	Chongtong block	1	...	...	1	...	...	
	Pograinbong do.	1	...	...	1	...	...	
	Total ...	26	...	...	26	...	97	
Teesta Subdivision.	West Teesta Range—							
	Seem block	2	...	...	2	...	12	Collecting bamboo seed.
Kurseong Subdivision.	Dhobijhora block	210	...	...	210	...	132	
	Chamta do.	11	...	...	11	...	4	
	Sukna do.	2	...	...	2	...	...	
	Champasari do.	...	...	...	...	...	8	
	Harlia do.	10	...	...	10	...	...	
	Tukriajhar do.	1	...	...	1	...	...	
	Rakti do.	53	...	...	53	...	...	
	Miscellaneous	8	...	...	8	...	...	
	Total ...	295	...	...	295	...	144	
Julpigori Subdivision.	Guzliduba and Rajadanga blocks	...	...	...	...	...	6	Broadcast sowing on north boundary line.
	Chengmari block	...	...	...	...	...	3	Collecting sissu seed.
	Lower Tondu do.	...	14	...	14	...	17	Broadcast sowing in savannahs.
	Total ...	...	14	...	14	...	26	
Buxa Subdivision.	Rajabhatkawa block—							
	Compartment 25	19	...	...	19	...	...	
	Ditto 26	511	...	...	511	...	...	
	Ditto 24	1	...	...	1	...	...	
	Ditto 21	47	...	...	47	...	...	
	Ditto 23	19	...	...	19	...	...	
	Ditto 15	1	...	...	1	...	64	Chiefly on experiments at Rajabhatkawa.
	Poro block	21	...	...	21	...	...	
	Buxa reserve	...	...	...	...	...	Miles. 26·5 52·0 3·0	Lines sown broadcast in savannahs with sál and malata seed.
	Borojhar forest	...	...	...	...	...	12	
	Salkuer do.	...	...	...	...	...		
	Total ...	619	...	...	619	...	76	
Chota Nagpore Division.	Head-quarters	...	...	...	...	...	2	Experiments.
Palamow Subdivision.	Range head-quarters	...	...	...	...	...	15	Ditto.
Hazaribagh Subdivision.	Ditto	...	...	...	...	...	6	Ditto.
Singbhoom Subdivision.	Ditto	...	...	...	...	...	34	Ditto.
Angul Subdivision	Tikarpara	2	...	...	2	...	3	
Khorda Subdivision.	Chandka block—							
	Dhobabundh	13	...	...	13	...	26	
	Ghosariparia	2	...	...	2	...	12	
	Bhalunkiparia	2	...	...	2	...	12	
	Compartment 9	10	2	...	12	...	128	
	Churang block—							
	Compartment 6	5	...	...	5	...	43	
	Ditto 8	5	2	...	7	...	64	
	Experiments	...	...	...	...	...	6	
	Total ...	37	4	...	41	...	291	
	Total Cultural Operations ...	981	18	...	999	...	706	
	Grand Total ...	3,877	134	...	4,011	...	6,604	

FORM No. 54.

FOREST DEPARTMENT, BENGAL.

Outturn (in cubic feet, solid) of Timber and Fuel during the year 1889-90, *and Agency of Exploitation.*

Division.	Timber in the rough; Logs.					Timber in the rough; Poles.					Sawn or squared Timber.					Miscellaneous.					Fuel.					Total
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
I.—RESERVED FORESTS.																									
Darjeeling Subdivision	...	127,107	750	...	127,857	...	12,900	...	...	12,900	2,445	...	...	...	2,445	...	...	...	...	...	332,527	292,039	32	...	624,598	767,800
Teesta ditto ...	...	92,582	..	...	92,582	...	5,310	100	...	5,410	...	45	...	...	45	...	...	...	...	...	30,464	149,958	1,260	...	181,682	279,260
Kurseong ditto ...	18	82,965	750	...	83,733	5,254	6,513	...	...	11,767	116	...	...	...	116	...	...	...	...	...	34,029	215,343	...	...	249,372	344,988
Julpigori ditto ...	3,194	32,349	...	...	35,543	155	32,630	...	...	32,785	...	...	...	...	...	...	62	...	...	62	7,205	733,980	...	...	741,185	809,575
Buxa ditto ...	5,105	83,057	...	...	88,162	4,107	21,861	2,100	...	28,068	...	...	...	...	...	...	301	...	...	301	...	2,571	...	...	2,571	119,102
Hazaribagh ditto ...	...	...	...	...	...	...	3,201	...	...	3,201	...	...	...	...	...	...	...	...	...	...	...	15,916	...	...	15,916	19,117
Singbhoom ditto ...	...	10,840	...	...	10,840	1,369	8,325	...	...	9,694	807	...	...	...	807	44	...	10,000*	...	10,044	9,688	54,458	1,000,000*	...	1,064,146	1,095,431
Sunderbuns Division ...	77	6,989,626	...	...	6,999,703	444	1,996,526	...	...	1,996,970	...	...	...	...	...	875†	...	...	...	875	2,872	9,569,616	...	...	9,572,488	18,569,036
Chittagong ditto ...	...	...	...	...	...	1,248	381	...	...	1,629	...	...	...	...	...	...	...	...	...	...	525	...	...	...	525	2,154
Orissa ditto ...	...	...	2,430	...	2,430	33	324	...	...	357	...	...	...	...	...	...	129	...	...	129	1,638	22,619	857	...	25,114	28,030
Total ...	8,394	7,418,526	3,930	...	7,430,850	12,610	2,087,871	2,200	...	2,102,681	3,368	45	...	...	3,413	919	492	10,000	...	11,411	418,948	11,056,800	1,002,149	...	12,477,897	28,626,963
II.—PROTECTED FORESTS.																									
Sunderbuns Division ...	...	58,957	...	...	58,957	...	185,623	...	...	185,623	...	...	...	...	...	...	...	...	...	...	...	950,488	...	...	950,488	1,196,068
Orissa ditto ...	388	...	...	...	388	...	4,007	1,341	...	6,348	...	...	...	...	...	...	28	728	...	756	...	2,438,963‡	3,500,000§	...	5,838,963	5,845,455
Total ...	388	58,957	...	...	59,345	...	189,630	1,341	...	190,971	...	...	...	...	...	...	28	728	...	756	...	3,389,451	3,500,000	...	6,789,451	7,040,523
III.—UNCLASSED FORESTS.																									
Direction Division ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,963	...	...	...	10,963	19,423	...	...	...	19,423	30,386‖
Singbhoom Subdivision	...	5,550	...	...	5,550	...	52,715	3,160	...	55,875	3,000	...	...	...	3,000	...	...	...	...	...	...	209,525	...	...	209,525	273,950
Chittagong Division ...	2,659	130,870	380	...	133,909	36	26,477	...	...	26,513	1,836	13,014	...	...	14,850	...	188,721	...	...	188,721	...	238,200	...	...	238,200	602,193
Total ...	2,659	136,420	380	...	139,459	36	79,192	3,160	...	82,388	4,836	13,014	...	...	17,850	10,963	188,721	...	...	199,684	19,423	447,725	...	...	467,148	906,529
GRAND TOTAL ...	11,441	7,613,903	4,310	...	7,629,654	12,646	2,356,693	6,701	...	2,376,040	8,204	13,059	...	...	21,263	11,882	189,241	10,728	...	211,851	438,371	14,793,676	4,502,149	...	19,734,196	29,973,004

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet solid.

* Estimated 220 privileged villages.

† Two confiscated sundri boats.

‡ House licenses under commutation system 13,208 estimated 2,311,400 cubic feet, included. Under the executive order of Government, revenue credited under Major head II.

§ 3,500,000 cubic feet estimated to have been removed free of charge for sale owing to scarcity.

‖ Bengal share of Gunduck drift.

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
					RESERVED FORESTS.							
Darjeeling Division.	I———											
	One-month permits (14) ... ... Mds.	...	...	420	7	...	...	...	...	420	7	IId, Rs. 7.
	India-rubber ... ... ,,	...	...	19	298	...	...	...	...	19	298	
	Damaging one India-rubber tree	...	...	...	25	...	...	...	...	...	25	
	Criptomeria seed (¼ lb.)	...	...	...	...	...	...	...	...	...	...	IIe, Rs. 323.
Darjeeling Subdivision (Darjeeling Division).	Bamboos ... ... No.	52	26	...	...	...	...	...	...	52	26	Ic, Rs. 26.
	Malina bamboos ... ... ,,	...	...	19,004	41	...	...	...	...	19,004	41	
	One-month mat-makers permits for ditto (778) ,,	...	...	465,600	347	...	...	...	...	465,600	347	Estimated 600 bamboos per permit.
	Compensation realized for illicit cutting, 4 loads estimated. ,,	...	...	80	15	...	...	...	...	80	15	IIc, Rs. 403.
	Fodder—											
	Coolie loads (1,552) ... ... Mds.	1,552	24	...	...	...	...	...	...	1,552	24	Ie, Rs. 16.
	One-month permits (3,012) ... ,,	...	...	90,360	1,506	...	...	...	...	90,360	1,506	Outstanding, Rs. 8 at close of the year.
	Coolie loads (1,106) ... ... ,,	...	...	1,106	26	...	...	...	...	1,106	26	
	Compensation realized for coolie loads (57). ,,	...	...	57	60	...	...	...	...	57	60	
	Compensation realized for lopping (9). ,,	...	...	9	9	...	...	...	...	9	9	
	Grazing—											
	One-month permit for cows .. No.	....		3,809	1,905	...	...	...	...	3,809	1,905	
	Ditto ditto bullocks ,,	...	...	419	209	...	...	...	...	419	209	
	Ditto ditto ponies ... ,,	...	...	5	3	...	...	...	...	5	3	
	Three-month ditto cows ... ,,	...	...	858	600	...	...	...	...	858	600	
	Ditto ditto buffaloes ,,	...	...	35	39	...	...	...	...	35	39	
	Ditto ditto sheep .. ,,	...	...	2,053	385	...	...	...	...	2,053	385	
	Compensation realized for grazing—											
	Cows ... ... No.	...	...	242	341	...	...	...	...	242	341	
	Bullocks ... ... ,,	...	...	77	106	...	...	...	...	77	106	
	Buffaloes ... ... ,,	...	...	66	125	...	...	...	...	66	125	
	Calves ... ... ,,	...	...	25	20	...	...	...	...	25	20	
	Sheep ... ... ,,	...	...	203	62	...	...	...	...	203	62	
	Ponies ... ... ,,	...	...	8	15	...	...	...	...	8	15	
	Goats ... ... ,,	...	...	13	7	...	...	...	...	13	7	IId, Rs. 5,427.
	Aconite root ... ... Mds.	...	...	25	40	...	...	...	...	25	40	
	Cane (21 coolie loads) ... ... ,,	...	...	21	7	...	...	...	...	21	7	
	Do. 10 monthly permit ... ... ,,	...	...	300	60	...	...	...	...	300	60	
	Compensation realized for 5 coolie loads cane. ,,	...	...	5	9	...	...	...	...	5	9	
	Moss (95 baskets) ... ... ,,	...	...	95	24	...	...	...	...	95	24	
	Fencing sticks (12 coolie loads) ,,	...	...	12	3	...	...	...	...	12	3	
	Fern leaves and flowers (9 coolie loads). ,,	...	...	9	1	...	...	...	...	9	1	
	Manure (500 coolie loads) ... ... ,,	...	...	500	51	...	...	...	...	500	51	
	Building stone (2,000 cubic feet) ,,	...	...	3,000	10	...	...	...	...	3,000	10	
	Antelope skin (one)	...	...	...	...	...	...	...	...	...	...	
	Compensation for cutting shrubs	...	...	...	1	...	...	...	...	...	1	IIe, Rs. 166.
Teesta Subdivision (Darjeeling Division).	Bamboos ... ... No.	...	...	137,302	1,015	...	...	...	...	137,302	1,015	
	Compensation for illicit cutting ditto (estimated). ,,	...	...	914	112	...	...	...	...	914	112	
	Bamboo roots (coolie loads) ... ,,	...	...	4	1	...	...	...	...	4	1	IIc, Rs. 1,128.
	Fodder—											
	One-month permits (524) ... Mds.	...	...	15,720	131	...	...	...	...	15,720	131	
	Coolie loads (14,741) ... ... ,,	...	...	14,741	234	...	...	...	...	14,741	234	Includes 14 maunds confiscated.
	Compensation for illicit removal (7 coolie loads). ,,	...	...	7	3	...	...	...	...	7	3	Revenue credited under III.
	Compensation for illicit lopping (1 tree). ,,	...	...	...	4	...	...	...	...	...	4	
	Grazing—											
	One-month permits for grazing cows. No.	...	...	2,781	348	...	...	...	...	2,781	348	
	Ditto ditto bullocks ,,	...	...	493	62	...	...	...	...	493	62	
	Ditto ditto buffaloes ,,	...	...	1,235	463	...	...	...	...	1,235	463	
	Ditto ditto ponies ,,	...	...	36	4	...	...	...	...	36	4	
	Ditto ditto goats ... ,,	...	...	55	7	...	...	...	...	55	7	
	Three-month ditto cows ... ,,	...	...	3,746	468	...	...	...	...	3,746	468	
	Ditto ditto bullocks ,,	...	...	35	4	...	...	...	...	35	4	
	Ditto ditto buffaloes ,,	...	...	368	92	...	...	...	...	368	92	
	Ditto ditto ponies ... ,,	...	...	42	5	...	...	...	...	42	5	
	Ditto ditto goats ... ,,	...	...	11	1	...	...	...	...	11	1	
	Twelve-month ditto cows ... ,,	...	...	...	...	175	263	...	...	175	263	
	Ditto ditto buffaloes ,,	...	...	...	...	22	66	...	...	22	66	
	Ditto ditto ponies ... ,,	...	...	...	...	10	15	...	...	10	15	
	Compensation for illicit grazing—											
	Cows ... ... No.	...	...	116	58	...	...	...	...	116	58	
	Bullocks ... ... ,,	...	...	2	1	...	...	...	...	2	1	
	Buffaloes ... ... ,,	...	...	190	151	...	...	...	...	190	151	
	Goats ... ... ,,	...	...	24	6	...	...	...	...	24	6	
	Calves ... ... ,,	...	...	6	1	...	...	...	...	6	1	
	Cows ... ... ,,		...	11	13	...	...	...	...	11	13	IId, Rs. 2,052.
	Buffaloes ... ... ,,		...	46						46		III, ,, 4. Fee grant ,, 344.

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90—continued.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	RESERVED FORESTS—*continued*.											
Teesta Subdivision (Darjeeling Division)—*contd.*	Thatch grass (coolie loads 4,027) Mds.	...	...	4,027	61	...	...	...	...	4,027	61	
	Cane (ditto 241) ,,	...	...	241	121	...	...	...	...	241	121	
	Lime stone ... ... ,,	...	...	800	200	...	...	...	...	800	200	
	Borla leaves (coolie loads 52) ,,	...	...	52	13	...	...	...	...	52	13	
	Kabai do. (ditto 11) ,,	...	...	11	3	...	...	...	...	11	3	
	Kabra do. (ditto 15) ,,	...	...	15	4	...	...	...	...	15	4	
	Plantain do. (ditto 6) ,,	...	...	6	1	...	...	...	...	*6	1	* Includes 2 loads removed without permit, for which compensation has been realized.
	Palm do. (ditto 78) ,,	...	...	78	19	...	...	...	...	78	19	
	Broom grass, (ditto 4) ,,	...	...	4	1	...	...	...	...	4	1	IIe, Rs. 423.
Kurseong Subdivision (Darjeeling Division).	Bamboos ... ... No.	...	...	47,544	1,850	...	...	...	...	47,544	1,850	
	One-month permit for ditto (51) ,,	...	...	816	51	...	...	...	...	816	51	Estimated 16 bamboos per permit.
	Maling and filing ditto ... ,,	...	...	4,650	24	...	...	...	...	4,650	24	IIc, Rs. 1,926.
	Compensation for illicit removal of bamboo shoots. ,,	...	...	2	1	...	...	...	...	2	1	Outstanding realized ,, 126.
	Fodder—											Total IIc Rs. 2,052.
	Coolie loads ... ... Mds.	...	...	9,611	149	...	...	...	...	9,611	149	
	Elephant loads (one-monthly permit). ,,	...	...	180	3	...	...	...	...	180	3	
	One-month permits (512) ... ,,	...	...	15,360	256	...	...	...	...	15,360	256	
	Compensation for illicit removal. ,,	...	...	13	12	...	...	...	...	13	12	
	Grazing—											
	One-month permit for cows ... No.	...	...	696	230	...	...	...	...	696	230	
	Ditto ditto bullocks ,,	...	...	178	34	...	...	...	...	178	34	
	Ditto ditto buffaloes ,,	...	...	217	69	...	...	...	...	217	69	
	Compensation for illicit grazing—											
	Cows ... ... No.	...	...	13	37	...	...	...	...	13	37	
	Buffaloes ... ... ,,	...	...	78	112	...	...	...	...	78	112	
	Goats ... ... ,,	...	...	36	12	...	...	...	...	36	12	IId, Rs. 914.
	Borla fibre ... ... Mds.	1	...	...	...	...	...	...	...	1	...	Burnt in sukna fire.
	Thatch grass ... ... ,,	...	...	8,402	254	...	...	...	...	8,402	254	
	Broom do. ... ... ,,	...	...	2	1	...	...	...	...	2	1	
	Cane ... ... ,,	...	...	25	60	...	...	...	...	25	60	
	Borla leaves ... ... ,,	...	...	9	2	...	...	...	...	9	2	Includes 1 maund removed without permit, for which compensation has been realized.
	Earth (4 cart loads) ... ... ,,	...	...	40	...	...	...	...	...	40	...	Ditto 25 ditto.
	Shingle (180 ditto) ... ... ,,	...	...	1,800	11	...	...	...	...	1,800	11	
	Rubber cuttings (825) ... ... ,,	...	...	...	7	...	...	...	...	...	7	IIc, Rs. 336.
	Jack fruits ... ... ,,	...	...	4	1	...	...	...	...	4	1	
Julpigori Subdivision (Julpigori Division).	Grazing—											
	One-month permit for cows ... No.	...	...	63	8	...	...	...	...	63	8	
	Ditto ditto buffaloes ,,	...	...	1,164	291	...	...	...	...	1,164	291	
	Five-month ditto bullocks ,,	...	...	20	13	...	...	...	...	20	13	
	Two-month ditto cows ... ,,	...	...	20	5	...	...	...	...	20	5	
	Compensation for illicit grazing—											
	Buffaloes ... ... ,,	...	...	449	303	...	...	...	...	449	303	
	Calves ... ... ,,	...	...	24	12	...	...	...	...	24	12	IId, Rs. 632.
	Thatch grass ... ... Mds.	...	...	8,760	140	...	...	...	...	8,760	140	
	Khagra do. ... ... ,,	...	...	764	15	...	...	...	...	764	15	
	Goicha leaves ... ... ,,	...	...	750	50	...	...	...	...	750	50	
	Long pepper ... ... ,,	...	...	28	14	...	...	...	...	28	14	IIe, Rs. 219.
Buxa Subdivision (Julpigori Division).	Bamboos ... ... No.	...	...	1,400	14	...	...	...	...	1,400	14	
	Compensation for illicit removal of bamboos. ,,	...	...	175	7	...	...	...	...	175	7	IIc, Rs. 21.
	Grazing—											
	One-month permits for cows ... No.	...	...	33	4	...	...	...	...	33	4	
	Ditto ditto buffaloes ,,	...	...	1,225	306	...	...	...	...	1,225	306	
	One-day permits for elephants ,,	...	...	1,142	144	...	...	...	...	1,142	144	IId, Rs. 454.
	Elephant tusks, 2 (48 seers) ... Mds.	1	600	...	...	...	...	...	...	1	600	Ie, Rs. 600.
	Thatch grass ... ... ,,	...	...	4,434	69	...	...	...	...	4,434	69	
	Khagra do. ... ... ,,	...	...	691	11	440	7	...	...	1,131	18	
	Madhua do. ... ... ,,	...	...	...	...	300	5	...	...	300	5	
	Goicha leaves ... ... ,,	...	...	16	1	...	...	...	...	16	1	
	Cane ... ... ,,	...	...	7	1	27	7	...	...	34	8	
	Pipul fruits ... ... ,,	...	...	4	55	...	...	...	...	4	55	IIe, Rs. 143.
	Jack do. (161) ... ... ,,	...	...	40	6	...	...	...	...	40	6	Free grants, Rs. 19.
Palamow Subdivision (Chota Nagpore Division).	Bamboos ... ... No.	608,297	*8,041	3,038	10	...	...	...	...	611,335	3,051	Ic, Rs. 6,880.
	Ditto ropes ... ... ,,	500	*7	...	...	...	...	...	...	500	7	IIc, Rs. 10.
	Grazing—											* Approximate value—1,020,282 bamboos and 100 ropes were sold for Rs. 6,880.
	Half-month permits for cows ... ,,	...	...	52	1	...	...	...	...	52	1	
	Ditto ditto buffaloes ,,	...	...	77	2	...	...	...	...	77	2	
	Ditto ditto calves ,,	...	...	8	...	...	...	...	...	8	...	
	One-month ditto cows ... ,,	...	...	440	14	...	...	...	...	440	14	
	Ditto ditto buffaloes ,,	...	...	3,658	234	...	...	...	...	3,658	234	
	Ditto ditto calves ... ,,	...	...	509	17	...	...	...	...	509	17	
	One and-a-half month permits for buffaloes. ,,	...	...	108	10	...	...	...	...	108	10	
	Ditto ditto calves ,,	...	...	16	1	...	...	...	...	16	1	

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90—continued.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	RESERVED FORESTS—*continued.*											
Palamow Subdivision (Chota Nagpore Division)—continued.	Grazing—*continued.*											
	Two-month permits for cows ... No.	...	...	98	8	...	...	...	...	98	8	
	Ditto ditto buffaloes ,,	...	...	1,682	135	...	...	...	...	1,682	135	
	Ditto ditto calves ,,	...	...	202	13	...	...	...	...	202	13	
	Ditto ditto bullocks ,,	...	...	32	2	...	...	...	...	32	2	
	Two and-a-half-month permits for cows. ,,	...	...	26	2	...	...	...	...	26	2	
	Ditto ditto buffaloes ,,	...	...	107	17	...	...	...	...	107	17	
	Ditto ditto calves ,,	...	...	2	...	...	...	...	...	2	...	
	Three-month ditto buffaloes ,,	...	...	860	161	...	...	...	...	860	161	
	Ditto ditto calves ,,	...	...	127	12	...	...	...	...	127	12	
	Four-month ditto buffaloes ,,	...	...	238	59	...	...	...	...	238	59	
	Ditto ditto calves ,,	...	...	7	1	...	...	...	...	7	1	
	Compensation for illicit grazing of cows. ,,	...	...	32	2	...	...	...	...	32	2	IId, Rs. 091.*
	Khur grass ... ... Mds.	...	...	1,874	29	...	...	...	...	1,874	29	
	Sabai do. (estimated) ... ... ,,	4,424	20	32	1	...	...	...	...	4,456	21	
	Mahua flowers ... ... ,,	8	5	19	6	...	...	...	...	27	11	
	Rent of trees—											
	Mahua, 222 (estimated) ... ... ,,	...	...	183	55	...	...	...	...	183	55	Ic, Rs. 25.
	Kusum, 32 ditto ... ... ,,	...	...	26	16	...	...	...	...	26	16	IIc, Rs. 323.
	Cutch, 144 "chatty" (estimated). ,,	...	...	72	216	...	...	...	...	72	216	
Hazaribagh Subdivision (Chota Nagpore Division).	Bamboos ... ... No.	...	...	23,366	175	...	...	...	...	23,366	175	IIc, Rs. 175.
	Fodder—											
	One-month permits (4) ... ... Mds.	...	...	120	1	...	...	...	...	120	1	
	Grazing—											
	One-month permits for grazing cows. No.	...	...	111	2	...	...	...	...	111	2	
	Ditto ditto bullocks ,,	...	...	465	7	...	...	...	...	465	7	
	Ditto ditto buffaloes ,,	...	...	105	7	...	...	...	...	105	7	
	Nine-month ditto cows ... ,,	...	...	16	3	...	...	...	...	16	3	
	Ditto ditto bullocks ,,	...	...	8	2	...	...	...	...	8	2	
	Ditto ditto buffaloes ,,	...	...	9	3	...	...	...	...	9	3	
	Twelve-month ditto bullocks ,,	...	...	16	4	...	...	...	...	16	4	
	Ditto ditto buffaloes ,,	...	...	62	31	...	...	...	...	62	31	
	One-day permit for stall-feeding—											
	Bullocks ... ... No.	...	...	201	3	...	...	...	...	201	3	
	Buffaloes ... ... ,,	...	...	198	3	...	...	...	...	198	3	
	Compensation for illicit grazing—											
	Cows ... ... ,,	...	...	76	38	...	...	...	...	76	38	
	Bullocks ... ... ,,	...	...	1	...	...	...	...	...	1	...	
	Buffaloes ... ... ,,	...	...	5	5	...	...	...	...	5	5	
	Calves ... ... ,,	...	...	16	5	...	...	...	...	16	5	IId, Rs. 118.
	Goats ... ... ,,	...	...	31	4	...	...	...	...	31	4	
	Silk cocoons (13,865) ... ... Mds.	10	139*	...	...	...	...	...	...	10	139	* Estimated value. 2,850 (including 850 purchased from local market and brought on stock during the year) were sold for Rs. 30.
	Thatch grass ... ... ,,	...	...	4,078	68	...	...	...	...	4,078	68	
	Sabai ,, ... ,,	...	...	2,500	300	...	...	...	...	2,500	300	
	Fencing thorns ... ... ,,	...	...	1,954	18	...	...	...	...	1,954	18	
	Leaves for plates ... ... ,,	...	...	20	1	...	...	...	...	20	1	
	Konyar, &c., leaves ... ... ,,	...	...	99	3	...	...	...	...	99	3	
	Chope fibre ... ... ,,	...	...	43	2	...	...	...	...	43	2	
	Kend fruits ... ... ,,	...	...	27	2	...	...	...	...	27	2	
	Jack ,, (20) ... ... ,,	...	...	2	}	...	...	...	...	2	}	
	Mahua flowers ... ... ,,	...	...	150	100	...	...	...	...	150	100	
	Harra fruits ... ... ,,	...	...	25	20	...	...	...	...	25	20	
	Mahua ,, (estimated) ... ,,	...	...	140	3	...	...	...	...	140	3	
	Rent of seven kusum trees for laying lac (estimated). ,,	...	...	1	1	...	...	...	...	1	1	
	Rent of 101 mica mines, estimated yield in maunds.	...	...	475	491	...	...	...	...	475	491	Ie, Rs. 30.
	Rent for prospecting mica mines for six months, estimated yield in maunds. ,,	...	...	96	128	...	...	...	...	96	128	IIe, ,, 1,13[illegible]
Singbhoom Subdivision (Chota Nagpore Division).	Bamboos ... ... No.	6,735	135†	31,390	137	...	...	...	...	38,125	272	† Approximate value. 8,089 bamboos were sold for Rs. 105.
	Ditto (confiscated) ... ... ,,	163	3	...	...	...	...	...	...	163	3	Ie, Rs. 105. IIe (part), Rs. 137. III (do.), ,, 8.
	Grazing—											
	One-month permits for grazing cows. ,,	...	...	161	3	...	...	...	...	161	3	
	Ditto ditto buffaloes ,,	...	...	892	44	...	...	...	...	892	44	
	Two-month ditto ditto ,,	...	...	1,056	119	...	...	...	...	1,056	119	
	Three-month ditto ditto ,,	...	...	299	52	...	...	...	...	299	52	
	Four-month ditto ditto ,,	...	...	178	44	...	...	...	...	178	44	
	Five-month ditto ditto ,,	...	...	40	12	...	...	...	...	40	12	
	Compensation for illicit grazing—buffaloes. ,,	...	...	40	5	...	...	...	...	40	5	IId, Rs. 279.
	Thatch grass (estimated) ... Mds.	46	(a)14	3,924	66	...	...	...	...	3,970	80	(a) Approximate value. Estimated 42 maunds were sold for Rs. 13.
	Compensation realized for illicit removal of ditto. ,,	...	...	2	1	...	...	...	...	2	1	
	Sabai grass (estimated) ... ,,	...	(b)6	788	250	...	...	...	...	788	256	(b) Estimated, 17 maunds were sold for Rs. 6 from the previous years' stock.
	Ditto (confiscated) ... ,,	20	6	...	...	...	...	...	...	20	6	
	Sabai ropes (ditto) ... ,,	38	(c)9	...	...	...	...	...	...	38	9	(c) Approximate value. Thirty-six maunds were sold for Rs. 8.
	Brush wood (estimated) ... ,,	...	...	1,417	21	...	...	...	...	1,417	21	

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90—continued.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	RESERVED FORESTS—*continued.*											
Singhbhoom Subdivision (Chota Nagpore Division)—*contd.*	Chope and udal fibre (estimated). Mds.	...	...	4	1	...	...	...	...	4	1	
	Slate stone ... ... ,,	...	...	390	14	...	...	...	...	390	14	
	Lime do. ... ... ,,	...	...	2,112	15	...	...	...	...	2,112	15	
	Iron ore ... ... ,,	...	...	151	9	...	...	...	...	151	9	
	Muljun leaves ... ... ,,	...	...	17	1	...	...	...	...	17	1	
	Sal do. ... ... ,,	...	...	3	1	...	...	...	...	3	1	
	Khejur do. ... ... ,,	...	...	90	3	...	...	...	...	90	3	
	Do. (confiscated) ... ... ,,	1	1	...	...	...	...	...	...	1	1	
	Silk cocoons No. 13,627 + 9,400 (estimated). ,,	45	626	31	94	...	...	...	...	44	238	
	Silk cocoons (confiscated) No. 612 (estimated). ,,	2	22	...	...	...	...	...	...	2	22	Ic, Rs. 645. IIc (part), Rs. 476. III (do.), ,, 37.
Sunderbuns Division.	Golpatta ... ... Mds.	...	...	3,341,184	52,206	...	...	...	...	3,341,184	52,206	
	Shells ... ... ,,	...	...	81,024	1,266	...	...	...	...	81,024	1,266	
	Hental ... ... ,,	...	...	16,832	263	...	...	...	...	16,832	263	
	Null ... ... ,,	...	...	110,144	1,721	...	...	...	...	110,144	1,721	
	Cane ... ... ,,	...	...	2,304	36	...	...	...	...	2,304	36	
	Keora fruits ... ... ,,	...	...	512	8	...	...	...	...	512	8	
	Wax and honey ... ... ,,	...	...	7,044	3,522	...	...	...	...	7,044	3,522	IIe (part), Rs. 59,022.
Chittagong Division.	Kalisury bamboos ... ... No.	...	...	4,575	14	...	...	...	...	4,575	14	
	Muli ditto ... ... ,,	...	...	3,380,357	10,141	...	...	...	...	3,380,357	10,141	
	Dolu ditto ... ... ,,	...	...	39,633	119	...	...	...	...	39,633	119	IIc (do.), ,, 10,274.
	Canes (estimated) ... ... Mds.	...	...	5,257	1,808	...	...	...	...	5,257	1,808	
	Sun-grass (ditto) ... ... ,,	...	...	3,255	155*	...	...	...	...	3,255	155	
	Kuruchpat (leaves) ... ... ,,	...	...	100	6	...	...	...	...	100	6	* Including amount received at preliminary auction sale of sun khalas.
												IIe (part), Rs. 1,989.
Orissa Division.	Mull bamboos ... ... No.	...	...	193	1	...	...	...	...	193	1	
	Salia ditto ... ... ,,	...	2†	460,100	1,165	14,000	35	...	...	480,100	1,200	† Value of 300 bamboos sold from previous year's stock.
	Compensation for illicit removal of bamboos. ,,	...	...	2,450	6	...	...	...	...	2,450	6	Free grants, Rs. 57.
	Split bamboos ... ... ,,	...	...	480	2	...	...	...	...	480	2	Ic, Rs. 2.
	Other ditto ... ... ,,	...	...	230,080	650	7,140	22	...	...	237,220	672	IIe (part), Rs. 1,824.
	Grazing—											
	Half-month permits for grazing buffaloes. No.	...	...	23	1	...	...	...	...	23	1	
	25-days' ditto calves ,,	...	...	2	...	...	...	...	...	2	...	
	One-month ditto cows ,,	...	...	29	2	...	...	...	...	29	2	
	Ditto ditto bullocks ,,	...	...	37	2	...	...	...	...	37	2	
	Ditto ditto buffaloes ,,	...	...	1,805	169	...	...	...	...	1,805	169	
	Ditto ditto calves ,,	...	...	469	22	...	...	...	...	469	22	
	Two-month ditto buffaloes ,,	...	...	34	6	...	...	...	...	34	6	
	Compensation for illicit grazing—											
	Cows ... ... No.	...	...	346	55	...	...	...	...	346	55	
	Bullocks ... ... ,,	...	...	2	1	...	...	...	...	2	1	
	Buffaloes ... ... ,,	...	...	212	71	...	...	...	...	212	71	
	Calves ... ... ,,	...	...	44	5	...	...	...	...	44	5	
	Cattle grazed in the reserved forests under Conservator's Order No. 96 T. P. / O, dated 8th November 1888—One-month permits. ,,	...	...	...	...	18,390	344	...	...	18,390	344	IId (do.), ,, 334. Free grants, Rs. 344.
	Siali-Nai (creepers) ... ... Mds.	...	...	267	7	220	6	...	...	487	13	
	Thatch grass (estimated) ... ,,	...	...	7,969	143	1,535	28	...	...	9,504	171	
	Joon grass (do.) ... ,,	...	...	100	4	...	...	...	...	100	4	
	Cane ... ... ,,	...	...	152	38	...	...	...	...	152	38	
	Red clay (50 cubic feet) ... ,,	...	...	75	1	...	...	...	...	75	1	
	Lime, shooting (50 ditto) ... ,,	...	...	75		...	...	...	...	75		
	Laterite (8,300 ditto) ... ,,	...	...	12,450	21	...	...	...	...	12,450	21	
	Thorns and brushwood ... ... ,,	...	...	278*	7	...	...	...	...	278	7	
	Mahua flowers ... ... ,,	...	...	...	...	55,111	729	...	...	55,111	729	Includes 13 maunds removed without permit, for which compensation has been realized.
	Kendu fruits ... ... ,,	...	...	24	1	1,012	256	...	...	1,036	257	
	Bel fruits ... ... ,,	...	...	...	...	18	6	...	...	18	6	
	Jaman fruits ... ... ,,	...	...	...	...	13	3	...	...	13	3	
	Mango ,, ... ,,	...	...	124	17	...	...	...	...	124	17	
	Kochila ,, ... ,,	...	...	96	6	...	...	...	...	96	6	
	Pani aloo, &c. ... ... ,,	...	...	2	1	15,837	1,103	...	...	15,839	1,104	
	Karada bark ... ... ,,	...	...	1	1	...	...	...	...	1	1	
	Cotton (16 seers)	...	...	...	1	...	...	...	...	...	1	
	Garada leaves ... ... ,,	...	...	...	...	3	1	...	...	3	1	
	Bamboo shoots (10,849) ... ... ,,	...	...	...	...	...	226	...	...	...	226	IIe (part), Rs. 248. Free grants ,, 2,358.

FORM No. 55.

FOREST DEPARTMENT, BENGAL

Outturn of Minor Forest Produce during the year 1889-90—continued.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			Rs.		Rs.		Rs.		Rs.		Rs.	
	PROTECTED FORESTS.											
Sunderbunds Division.	Golpatta ... ... Mds.	...	...	81,664	1,275	...	...	...	...	81,664	1,275	
	Shells ... ... ,,	...	...	43,264	676	...	...	...	...	43,264	676	
	Hental ... ... ,,	...	...	89,792	1,403	...	...	...	...	89,792	1,403	
	Nuli ... ... ,,	...	...	109,248	1,707	...	...	...	...	109,248	1,707	
	Wax and honey ... ... ,,	...	...	9,328	4,664	...	...	...	...	9,328	4,664	IIe 9,725
	Add—Revenue under IIe—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	 59,022
	Total revenue of the Division under IIe.	...	...	...	...	...	...	...	...	...	...	 68,747
Orissa Division.	Muli bamboos ... ... No.	...	...	1,325	10	..	...	...	...	1,325	10	
	Dolu ditto ... . ,,	...	...	600	2	...	...	...	...	600	2	
	Thorny ditto ... ... ,,	...	...	9,100	17	...	...	...	...	9,100	17	
	Split ditto ... ... ,,	...	...	2,530	7	...	...	...	...	2,530	7	
	Other ditto ... ... ,,	...	...	203,530	386	3,302,000*	6,191	...	...	3,505,530	6,577	Removals by Government ryots under executive order of Government.
	Compensation for illicit removal of ditto. ,,	...	...	200	...	...	...	...	...	200	...	Free grants, Rs. 6,191.
	Add—Revenue under IIc—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	Rs. IIc (part) ... 422 1,824
	Total revenue of the Division under IIc.	...	...	...	...	...	...	...	...	...	...	 2,246
	Grazing—											
	One-month permits for grazing cows. No.	...	..	233	29	699,360	43,710	...	...	699,593	43,740	Figures under free grants represent Government ryots' cattle grazed on their 4-anna annual house licenses; value calculated at half existing sanctioned rates for outsiders.
	Ditto ditto buffaloes ,,	...	...	120	23	69,276	6,495	...	...	69,396	6,518	
	Ditto ditto goats ... ,,	...	...	...	...	63,456	5,949	...	...	63,456	5,949	
	Ditto ditto sheep ... ,,	...	...	...	...	21,864	683	...	...	21,864	683	
	Ditto ditto bulls and bullocks. ,,	...	..	...	...	711,012	44,438	...	...	711,012	44,438	
	Ditto ditto horses and ponies. ,,	...	...	...	...	2,592	162	...	...	2,592	162	
	Two-month permits for grazing buffaloes. ,,	...	...	77	29	...	...	...	...	77	29	
	Three-month permits for grazing buffaloes. ,,	...	...	14	8	...	...	...	...	14	8	
	Four-month permits for grazing buffaloes. ,,	...	...	4	3	...	...	...	...	4	3	
	Compensation realized for illicit grazing—											
	Buffaloes ... ... ,,	...	...	41	19	...	...	...	...	41	19	Free grants, Rs. 1,01,437.
	Goats ... ... ,,	..	...	400	60	...	...	...	...	400	60	Rs. IId (part) ... 171
	Add—Revenue under IId—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	 334
	Total revenue of the Division under IId.	...	...	...	...	...	...	...	...	...	...	 505
	Laterite, (275,725 c. ft., estimated) Mds.	...	...	412,988	753	30,600	102	...	...	443,588	855	Free grants all to Khorda Government ryots.
	Sand stone, (2,350 do., do.) ... ,,	...	...	1,425	5	2,100	7	...	...	3,525	12	
	Hard stone, (80,900 do., do.) ... ,,	...	...	91,350	152	...	...	...	...	91,350	152	
	White stone, (11,050 do., do.) ... ,,	...	...	16,575	40	...	...	...	...	16,575	40	
	Lime, shooting (2,075 c. ft. do.) ... ,,	...	...	3,112	21	...	...	...	...	3,112	21	
	Gravel (2,500 c. ft. do.) ... ,,	...	...	3,750	6	...	...	...	...	3,750	6	
	White clay (650 c. ft. do.) ... ,,	...	...	975	6	...	...	...	...	975	6	
	Red clay, (200 c. ft. do.) ... ,,	...	...	300	2	...	...	...	...	300	2	
	Cane ... ... ,,	...	...	8	2	...	...	...	...	8	2	
	Kamila-gundi powder ... ... ,,	...	...	64	40	...	...	...	...	64	40	
	Oata bark ... ... ,,	...	...	16	6	...	...	...	...	16	6	
	Fruits of sorts ... ... ,,	...	...	1,034	96	...	...	...	...	1,034	96	
	Date leaves ... ... ,,	...	...	48	1	...	...	...	...	48	1	
	Thorns ... ... ,,	...	...	708	16	1,320,800	20,637	...	...	1,321,508	20,653	
	Jhattiea (brushwood) ... ... ,,	...	..	220	7	660,640	27,625	...	...	660,860	27,632	
	Joon grass (estimated) ... ... ,,	...	...	22	1	...	...	...	...	22	1	
	Edible jungle products given to Savars and Bauris free of charge ,,	...	...	...	...	15,598	1,000	...	...	15,598	1,000	Free grants, Rs. 49,271.
	Add—Revenue under IIe—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	Rs. IIe (part) ... 1,104 248
	Total revenue of the Division under IIe.	...	...	...	...	...	...	...	...	...	...	 4,402
	UNCLASSED STATE FORESTS AND WASTE LANDS.											
Singbhoom Subdivision, (Chota Nagpur Division).	Bamboos ... ... No.	...	...	1,925	10	...	...	...	...	1,925	10	Rs. IIc (part) ... 10
	Add Revenue under IIc—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	IIe (do.) ... 137
	Total revenue of subdivision under IIc.	...	...	...	...	...	...	...	...	...	...	 147
	Thatch grass (estimated) ... Mds.	...	...	555	11	...	...	...	...	555	11	
	Sabai (ditto) ... ,,	...	...	6	1	...	...	...	...	6	1	
	Brush wood (ditto) ... ,,	...	...	875	14	...	...	...	...	875	14	
	Arjun bark (ditto) ... ,,	...	...	660	6	...	...	...	...	660	6	
	Khejoor leaves (ditto) ... ,,	...	...	52	3	...	...	...	...	52	3	
	Lime stone (ditto) ... ,,	...	...	6,137	72	...	...	...	...	6,137	72	
	Slate stone (ditto) ... ,,	...	...	100	3	...	...	...	...	100	3	
	Kankar (ditto) ... ,,	...	...	1,500	9	...	...	...	...	1,500	9	
	Silk cocoons, 783 (ditto) ... ,,	...	...	2	4	...	...	...	...	2	4	IIe (part) ... 123
	Add—Revenue under IIe, Reserved Forests.	...	...	...	...	...	...	...	...	...	...	Rs. 476
	Total revenue of the subdivision under IIe.	...	...	...	...	...	...	...	...	...	...	 599

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90—continued.

Division.	Description of Produce.	Produce removed or utilized. By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity	Total. Value.	Remarks.
			Rs.		Rs.		Rs		Rs.		Rs.	
	UNCLASSED STATE FORESTS AND WASTE LANDS—*continued*.											
Chittagong Division.	Orah bamboos ... ... No.	...	...	8,999	29	...	...	...	...	8,999	29	Including preliminary pass fees proportionately distributed.
	Mitinga ditto ... ... ,,	...	...	542	2	...	...	...	...	542	2	Rs.
	Dolu ditto ... ... ,,	960	3	842,139	2,668	...	...	...	...	843,099	2,671	III (part) ... 18
	Muli ditto ... ... ,,	3,000	15	9,338,712	25,452	3,000	9	...	...	9,344,712	25,476	Free grant ... 9
	Kalayee ditto ... ... ,,	...	...	21,825	60	...	...	...	...	21,825	60	
	Deduct—											IIc (part) ... 28,211
	Amount paid to Maharaja, Hill Tipperah.	...	...	...	...	...	...	...	...	...	...	 5,953
	IIc.—Unclassed State forests and waste lands, nett.	...	...	...	...	...	...	...	...	...	...	 22,258
	Add—Revenue under IIc—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	 10,274
	Total revenue of the Division under IIc.	...	...	...	...	...	...	...	...	...	...	 32,532
	Canes (estimated) ... ... Mds.	(*a*) 10	1	6,417	1,797	300	2	...	...	6,727	1,800	Including preliminary pass fees.
	Sun-grass (ditto) ... ,,	(*b*) 154	51	181,831	7,275	33	6	...	...	182,018	7,332	Ditto ditto.
	Kuruchpat leaves (estimated) ... ,,	...	...	2,038	123	...	...	...	...	2,038	123	Ditto ditto.
	Gurjun oil ... ... ,,	...	...	97	69	...	...	...	...	97	69	Rs.
												III (part) ... 52
												Free grant ... 8
	Deduct—											IIe (part) ... 9,264
	Amount paid to Maharaja, Hill Tipperah.	...	...	...	...	...	...	...	...	...	...	 2,329
	IIe.—Unclassed State forests and waste lands, net.	...	...	...	...	...	...	...	...	...	...	 7,035
	Add—Revenue under IIe—Reserved Forests.	...	...	...	...	...	...	...	...	...	...	 1,969
	Total revenue of the Division under IIe.	...	...	...	...	...	...	...	...	...	...	 9,004
												(*a*) Confiscated. (*b*) Drift.
	Bamboos.	**ABSTRACT OF THE CIRCLE.**										
	Reserved forests ... ... No.	615,747	3,214	4,850,213	15,898	21,140	57	...	...	5,487,100	19,169	Rs.
												Revenue IIc ... 15,898
												Outstanding realised 126
	Protected forests ... ... ,,	...	...	217,285	422	3,302,000	6,191	...	...	3,519,285	6,613	Revenue IIc ... 422
												Ditto gross ... 28,221
												Less amount paid to Maharaja, Hill Tipperah 5,953
	Unclassed, &c., forests ... ... ,,	3,960	18	10,211,142	28,221	3,000	9	...	...	10,218,102	28,248	Net ... 22,268
												Total revenue credited under IIc ... 38,714
	Grand Total, Bamboos ... ,,	(*a*)619,707	(*a*)3,232	15,278,640	44,541	3,326,140	6,257	...	...	19,224,487	54,030	(*a*) Number and value of the year's out-turn, not of number sold and revenue realized.
	* *Grazing and fodder grass.*	**RESERVED FORESTS.**										
	Grazing—											
	One-month permits for cows No.	...	...	22,406	3,612	2,100	263	...	...	24,506	3,875	
	Ditto ditto bullocks ,,	...	...	2,132	342	264	66	...	...	2,396	408	
	Ditto ditto buffaloes ,,	...	...	22,500	2,369	...	...	...	...	22,500	2,369	
	Ditto ditto calves ,,	...	...	1,826	66	...	...	...	...	1,826	66	
	Ditto ditto ponies ,,	...	...	147	12	120	15	...	...	267	27	
	Ditto ditto sheep ,,	...	...	6,159	385	...	...	...	...	6,159	385	
	Ditto ditto goats ,,	...	...	88	8	...	...	...	...	88	8	
	Ditto ditto elephants ,,	...	...	38	144	...	...	...	...	38	144	
	Ditto ditto not specified. ,,	...	...	...	...	18,390	344	...	...	18,390	344	
	Compensation accepted for illicit grazing. ,,	...	...	2,434	1,573	...	...	...	...	2,434	1,573	
	Total Grazing, Reserved Forests. ,,	...	...	57,750	8,511	20,874	688	...	...	78,624	9,199	Rs.
												Revenue under IId grazing (part) ... 8,511
		PROTECTED FORESTS.										
	One-month permits for cows ... No.	...	...	233	29	699,360	43,710	...	...	699,593	43,739	
	Ditto ditto bulls and bullocks. ,,	...	...	...	...	711,012	44,438	...	...	711,012	44,438	
	Ditto ditto buffaloes ,,	...	...	332	63	60,276	6,495	...	...	60,608	6,558	
	Ditto ditto horses and ponies. ,,	...	...	...	...	2,592	162	...	...	2,592	162	
	Ditto ditto sheep ... ,,	...	...	...	...	21,864	683	...	...	21,864	683	
	Ditto ditto goats ... ,,	...	...	...	...	63,456	5,949	...	...	63,456	5,949	
	Compensation for illicit grazing ... ,,	...	...	441	79	...	...	...	...	441	79	
	Total Grazing, Protected Forests. ,,	...	...	1,006	171	1,567,560	101,437	...	...	1,568,566	101,608	Rs.
												Grazing (part) ... 171
	Grand Total Value Grazing ... ,,	...	...	...	8,682	...	1,02,125	...	...	...	1,10,807	Grazing IId (part) 8,682

* NOTE.—For the purpose of this abstract of "Grazing," permits for grazing issued for various periods have been reduced to, and are expressed in their equivalents in one-month permits. The unit is therefore one animal grazed for one month, and the number here given, if divided by 12, will give the average number of animals grazing daily throughout the year.

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1889-90—(concluded).

Division.	Description of Produce.	Produce removed or utilized.										Remarks.
		By Government agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs.		Rs.		Rs.		Rs.		Rs.	
	ABSTRACT OF THE CIRCLE—*concluded.*											
	OTHER MINOR PRODUCE.			RESERVED FORESTS.								
	Fodder ... ... Mds.	1,552	24	147,704	2,397	...	...	...	...	149,256	2,421	Revenue credited under II*d*. Total revenue under II*d*, Rs. 11,079.
	Cane ... ... ,,	...	...	8,312	2,140	27	7	...	...	8,339	2,147	
	Thatch and other grasses ... ,,	46	14	48,286	1,018	2,275	40	...	...	50,607	1,072	
	Sabai grass .. .. ,,	4,482	41	3,320	551	...	...	...	...	7,802	592	
	Leaves (thatching and other) ... ,,	1	1	1,267	108	3	1	...	...	1,271	110	
	Null ... ... ,,	...	...	110,144	1,721	...	...	...	...	110,144	1,721	
	Golpatta ... ... ,,	...	...	3,341,184	52,206	...	...	...	...	3,341,184	52,206	
	Hental ... ... ,,	...	...	16,832	263	...	...	...	...	16,832	263	
	Shells for lime ... ... ,,	...	...	81,024	1,266	...	...	...	...	81,024	1,266	
	Lime ... ... ,,	...	...	2,087	216	...	...	...	...	2,087	216	
	India-rubber .. .. ,,	...	...	19	323	...	...	...	...	19	323	
	Cutch ... ... ,,	...	...	72	216	...	...	...	...	72	216	
	Bark, orchids, resin, fibre, roots and moss. ,,	1	...	168	68	...	...	...	...	169	68	
	Thorns, creepers, stakes and brambles, ,,	...	...	3,928	56	220	6	...	...	4,148	62	Rs. Revenue I*e* ... ... 1,316 III (part) ... ... 37 Outstanding ... ... 8 Out-turn not sold ... 111
	Laterite, &c. ... ... ,,	...	...	15,450	31	...	...	...	...	15,450	31	
	Mica ... ... ,,	...	...	571	619	...	...	...	...	571	619	
	Iron ore ... ... ,,	...	...	151	9	...	...	...	...	151	9	
	Slate stone ... ... ,,	...	...	300	14	...	...	...	...	300	14	
	Earth, clay, &c. ... ... ,,	...	...	1,015	11	...	...	...	...	1,015	11	Total Government Agency 1,472
	Lac ... ... ,,	...	...	210	72	...	...	...	...	210	72	
	Wax and honey ... ... ,,	...	...	7,044	3,522	...	...	...	...	7,044	3,522	
	Flowers, fruits and seeds ... ,,	8	5	1,205	242	71,991	2,097	...	...	73,204	2,344	
	Manure ... ... ,,	...	...	500	31	...	...	...	...	500	31	
	Silk cocoons ... ... ,,	57	787	31	94	...	...	...	...	88	881	
	Ivory (96 lbs.) ... ... ,,	1	600	...	...	...	...	...	...	1	600	
	Seedlings, &c. (11,075)	...	...	...	8	...	226	...	...	...	234	
	Total Other Minor Produce (Reserved Forests.) Mds.	6,148	1,472	3,702,714	67,292	74,516	2,377	...	...	3,873,378	71,051	Minor produce— Reserves ... ... 67,202 *Less*—Fodder ... ... 2,397 IIe.—Reserves 64,805
		PROTECTED FORESTS.										
	Cane ... ... Mds	...	...	8	2	...	...	...	...	8	2	
	Thatch and other grasses ... ,,	...	...	22	1	...	...	...	...	22	1	
	Leaves (thatching and other) ... ,,	...	...	48	1	...	...	...	...	48	1	
	Null ... ... ,,	...	...	109,248	1,707	...	...	...	...	109,248	1,707	
	Golpatta ... ... ,,	...	...	81,664	1,275	...	...	...	...	81,664	1,275	
	Hental ... ... ,,	...	...	89,792	1,403	...	...	...	...	89,792	1,403	
	Shells for lime ... ... ,,	...	...	43,264	676	...	...	...	...	43,264	676	
	Lime ... ... ,,	...	...	3,112	21	...	...	...	...	3,112	21	
	Bark, orchids, resin, fibres, roots and moss. ,,	...	...	16	6	...	...	...	...	16	6	
	Thorns, creepers, stakes and brambles, ,,	...	...	988	23	1,981,440	48,162	...	...	1,982,428	48,185	
	Laterite, &c. ... ... ,,	...	...	522,338	950	32,700	109	...	...	555,038	1,059	
	Earth, clay, &c. ... ... ,,	...	...	5,025	14	...	...	...	...	5,025	14	
	Wax and honey ... ... ,,	...	...	9,328	4,664	...	...	...	...	9,328	4,664	
	Flowers, fruits and seeds ... ,,	...	...	1,034	96	15,598	1,000	...	...	16,632	1,096	
	Kamila gundi powder ... ... ,,	...	...	64	40	...	...	...	...	64	40	
	Total Other Minor Produce (Protected Forests.) ,,	...	...	865,951	10,879	2,029,738	49,271	...	...	2,895,689	60,150	Rs. IIe.—Protected 10,879
		UNCLASSED STATE FORESTS AND WASTE LANDS.										
	Cane ... ... Mds.	10	1	6,417	1,797	300	2	...	...	6,727	1,800	
	Thatch and other grasses ... ,,	154	51	182,386	7,286	33	6	...	...	182,573	7,343	
	Sabai grass ... ... ,,	...	...	6	1	...	...	...	...	6	1	
	Leaves (thatching and other) ... ,,	...	...	2,000	126	...	...	...	...	2,000	126	
	Lime ... ... ,,	...	...	6,137	72	...	...	...	...	6,137	72	
	Bark, orchids, resin, fibres, roots and moss. ,,	...	...	660	6	...	...	...	...	660	6	
	Thorns, creepers, stakes and brambles, ,,	...	...	875	14	...	...	...	...	875	14	
	Slate stone ... ... ,,	...	...	100	3	...	...	...	...	100	3	
	Earth, clay, &c. ... ... ,,	...	...	1,500	9	...	...	...	...	1,500	9	
	Silk cocoons ... ... ,,	...	...	2	4	...	...	...	...	2	4	
	Gurjun oil ... ... ,,	...	...	97	69	...	...	...	...	97	69	III (part). Rs. 53.
	Total Other Minor Produce (Unclassed, &c., Forests.) ,,	164	52	200,270	9,387	333	8	...	...	200,767	9,447	Rs. IIe.—Unclassed ... ... 9,387 *Less*—Amount paid Maharaja, Hill Tipperah ... 2,220
	GRAND TOTAL OF THE CIRCLE, OTHER MINOR PRODUCE. ,,	6,312	1,524	4,858,935	87,408	2,104,587	51,656	...	...	6,969,834	1,40,648	Balance ... ... 7,153 Total revenue credited under II*e* 83,842

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1889-90.

TIMBER.

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
Balance at commencement of the year—				
Darjeeling Subdivision—				
Scantling, buk	70	150		
,, phulut	18	27		
			88	177
Teesta Subdivision—				
Sâl sleepers	230	307		
Sissu poles	7	...		
			237	307
Kurseong Subdivision—				
Scantling (various)	64	59		
			64	59
Buxa Subdivision—				
Sâl logs	237	8,405		
,, scantling	291	234		
,, sleepers	3,190	4,263		
,, posts	167	...		
,, pieces	44	380		
,, slabs	124	...		
			4,053	13,372
Singbhoom Subdivision—				
Sâl sleepers, b. g.	1,967	6,108		
,, scantling	81	101		
,, beams	230	771		
,, planks	347	812		
,, slabs	8	7		
,, poles	981	981		
Gamhar beam	1	4		
Karam ,, ...	3	13		
,, scantling	5	3		
			3,623	8,800
Sunderbuns Division—				
Sundri logs	85	917		
,, planks	104	53		
Pussur logs	3	7		
Roof beams	21	6		
Teak-wood planks	42	8		
Boats	3	...		
			258	991
Chittagong Division—				
Scantling	2	4		
			2	4
Orissa Division—				
Sâl logs	51	4,112		
Scantling (various)	22	18		
Sâl posts	50	468		
Other ,, ...	21	45		
			244	4,643
Total balance ..	...	...	8,569	28,353
Received from the forests in sale depôts—				
Darjeeling Subdivision—				
Scantling, buk	542	1,279		
,, champ	2,117	929		
			2,659	2,208
Julpigori Subdivision—				
Sâl logs	117	2,300		
Sissu ,, ...	34	694		
Sâl poles	14	28		
			165	3,022
Buxa Subdivision—				
Sâl logs	110	3,985		
Sissu ,, ...	6	119		
Sâl sleepers	157	208		
,, scantling	26	166		
Champ piece	1	15		
			300	4,493
Singbhoom Subdivision—				
Sâl scantling	102	68		
,, beams	130	507		
,, planks	14	47		
,, slabs	14	14		
,, poles	1,467	1,467		
			1,730	2,103

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
Removed by purchasers from sale depôts—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Miscellaneous	1,095	7,405		
			1,095	7,405
Julpigori Subdivision—				
Sâl logs	100	1,820		
Other ,, ...	5	278		
Sissu ,, ...	34	650		
Sâl poles	3	12		
Sissu ,, ...	8	69		
			150	2,829
Buxa Subdivision—				
Sâl logs	20	1,112		
,, sleepers	699	931		
,, scantling	1,848	1,374		
,, pieces	85	338		
,, slabs	660	...		
Sissu logs	3	61		
Miscellaneous scantling ...	7	4		
Sissu piece	1	4		
			3,332	3,824
Singbhoom Subdivision—				
Sâl sleepers	435	1,305		
,, scantling	755	2,214		
,, slabs	21	21		
,, pieces	3	...		
,, poles	1,480	1,485		
Miscellaneous scantling ...	3	20		
			2,697	5,045
Sunderbuns Division—				
Sundri logs	45	266		
,, boat	1	...		
Pussur posts	18	38		
Jarul log	1	22		
			65	326
Chittagong Division—				
Boats	28	1,760		
Logs	55	2,087		
Planks	664	1,841		
			747	5,688
Orissa Division—				
Sâl logs	34	1,319		
,, posts	16	175		
,, beams	2	27		
			52	1,521
Total removed by purchasers from sale depôts	...	...	8,138	26,638
Sold locally (as per *contra*) ...	...	...	4,143	11,924
Given up to claimants—				
Sunderbuns Division—				
Sundri logs	8	303		
,, boats	2	...		
			10	303
Chittagong Division—				
Boats	2	503		
Logs	4	572		
			6	1,075
Total given up to claimants ...	...	...	16	1,378
Given up to Eastern Bengal State Railway for experiment—				
Kurseong Subdivision—				
Scantling kala siris	3	4		
,, karam	3	4		
,, jaman	3	1		
			9	9
Reduced on remeasurements—				
Teesta Subdivision—				
Sâl sleeper	...	1		
			...	1
Julpigori Subdivision—				
Sissu logs	...	44		
			...	44
Buxa Subdivision—				
Sâl logs	...	204		
Sissu ,, ...	...	6		
Scantling sâl	...	5		
			...	215
Total reduced on remeasurements	...	...	...	260

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1889-90—continued.

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
TIMBER—*continued.*				
Received from the forests in sale depôts—*continued.*				
Chittagong Division—				
Gamhar logs	30	540		
Chapalish ,, ...	2	108		
Other ,, ...	15	388		
Teak poles	111	179		
Sissu ,, ...	29	29		
Tun ,, ...	4	4	191	1,248
Orissa Division—				
Sál logs	36	1,665		
,, beams	2	27	38	1,692
Total received from the forests in sale depôts	...	...	5,095	14,766
Received from the forests and sold locally—				
Kurseong Subdivision—				
Gambari log	1	18		
Sál log ,, (confiscated) ...	13	195		
Sal scantling (ditto) ...	39	48		
Sál poles	72	651		
Other ,, ...	1,330	2,675	1,455	3,587
Julpigori Subdivision—				
Sál log	1	9	1	9
Buxa Subdivision—				
Sál sleepers	49	65		
,, scantling	1,099	1,808		
,, pieces	143	878		
,, poles	203	4,107		
,, slabs	468	...		
Tun ,, ...	50	...	2,012	6,858
Singbhoom Subdivision—				
Sál planks (unreserved forests)	515	727		
,, scantling (ditto)	12	19	527	746
Orissa Division—				
Sál sleepers	96	336		
,, logs	52	388	148	724
Total sold locally ...	...	...	4,143	11,924
Received by collection of drift in sale depôts—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Miscellaneous	1,895	9,533		
Ditto (balance of 1888-89 not shown in form No. 56 of that year) ...	197	1,431	2,092	10,964
Julpigori Subdivision—				
Sál logs	4	169		
Other ,, ...	5	278		
Sál poles	4	20		
Other ,, ...	22	107	35	574
Chittagong Division—				
Boats	27	1,474		
Logs	47	1,925		
Plank	1	16	75	3,395
Total drift ...	...	...	2,202	14,933
Found in depôts—				
Buxa Subdivision—				
Sál piece	1	4		
,, slab	1	...	2	4
Singbhoom Subdivision—				
Sál beams...	14	144	14	144
Total found in depôts	...	...	16	148

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
Written off as lost and used by department—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Miscellaneous	90	585	90	585
Darjeeling Subdivision—				
Scantling champ	42	39		
,, buk	2	3	44	42
Kurseong Subdivision—				
Scantling (various)	35	34	35	34
Julpigori Subdivision—				
Sál logs	5	119		
,, poles	12	24		
Other ,, ...	14	38	31	181
Buxa Subdivision—				
Sál sleepers	100	112		
,, slabs	17	...		
Miscellaneous scantling ...	42	18	159	130
Singbhoom Subdivision—				
Sál scantling	35	48	35	48
Sunderbuns Division—				
Sundri planks	105	54		
,, roof beams	3	1		
Teak planks	8	2	116	57
Chittagong Division—				
Scantling	2	4		
Boats	2	218		
Gamhar logs	30	540		
Chapalish logs	2	108		
Other ,, ...	15	388		
Teak poles	111	179		
Sissu ,, ...	29	29		
Tun ,, ...	4	4	195	1,470
Total lost and used by department	...	...	705	2,547
Rectification of error—				
Buxa Subdivision—				
Sál scantling	5	13	5	13
Converted in depôts—				
Buxa subdivision—				
Sál logs	106	3,446		
Sissu ,, ...	2	59		
Sál scantling	18	108		
,, pieces	55	544		
Champ ,, ...	1	15	182	4,152
Sunderbuns Division—				
Sundri logs	5	109	5	109
Total converted in depôts ...	...	...	187	4,261
Transferred to other sale depôts (as per *contra*)	...	...	203	564
Balance at close of the year—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Miscellaneous	907	2,974	907	2,974
Darjeeling Subdivision—				
Scantling champ	2,075	890		
,, bulk	610	1,426		
,, phalat	18	27	2,703	2,343
Teesta Subdivision—				
Sál sleepers	230	306		
Sissu poles	7	...	237	306
Kurseong Subdivision—				
Scantling (various)	20	16	20	16

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1889-90—continued.

TIMBER—*concluded.*

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
Received by confiscation in depôts—				
Singbhoom Subdivision—				
Sál poles	2	6		
„ pieces	3	...	5	6
Sunderbuns Division—				
Sundri logs	2	17		
Jarool „	1	22		
Sundri posts	29	104		
Other „	827	378		
Sundri boats	2	875	861	1,396
Chittagong Division—				
Boats	7	1,126		
Planks	663	1,925		
Logs	12	734		
Posts	32	36	714	3,721
Total confiscated in depôts ...	...	...	1,580	5,123
Received by re-measurement—				
Buxa Subdivision—				
Sál log	...	113		
„ sleeper	...	1		
„ scantling	...	13	...	127
Singbhoom Subdivision—				
Gamhar beam	...	2		
Karam „	...	7		
Sál planks	...	7		
„ slab	...	1		
„ pole	...	1	...	18
Total received by re-measurement	...	...	...	145
Received by conversion in depôts—				
Buxa Subdivision—				
Scantling sál	1,925	1,483		
„ miscellaneous ...	85	40		
Sál pieces	96	502		
„ slabs	628	...	2,734	2,025
Sunderbuns Division—				
Sundri planks	16	13		
„ posts	4	25	20	38
Total conversion in depôts ...	...	...	2,754	2,063
Received by transfer from sale depôts—				
Buxa Subdivision—				
Sál logs	2	43		
„ scantling	201	521	203	564
Total transferred from other sale depôts	...	...	203	564
Balance of timber, written off as used by department, taken back in stock—				
Buxa subdivision—				
Sál scantling	22	18	22	18
Total Timber ...	...	...	24,584	78,037

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
Balance at close of the year—*concluded.*				
Julpigori Subdivision—				
Sál logs	16	530		
„ poles	3	12	19	542
Buxa Subdivision—				
Sisu log	1	13		
Sál „	218	7,832		
„ sleepers	2,648	3,429		
„ scantling	393	414		
„ slabs	76	...		
„ poles	167	...		
Miscellaneous scantling ...	36	17	3,439	11,705
Singbhoom Subdivision—				
Sál sleepers	1,532	4,803		
„ scantling	41	36		
„ beams	36	128		
„ planks	60	51		
„ slab	1	1		
„ poles	970	970		
Karam scantling	5	3		
„ beams	1	6	2,646	5,978
Sunderbuns Division—				
Sundri logs	29	256		
Pussur „	3	7		
Sundri boats	2	875		
„ roof beams	18	5		
„ planks	15	12		
Teakwood „	34	6		
Sundri posts	33	129		
Goran	809	340	943	1,630
Chittagong Division—				
Boats	2	99		
Posts	4	8		
Saplings	28	28	34	135
Orissa Division—				
Sál logs	153	4,458		
Scantling (various)	22	18		
Sál posts	34	293		
Other „	21	45	230	4,814
Total balance ...	...	...	11,178	30,443
Total Timber ...	...	...	24,584	78,037

ABSTRACT OF THE CIRCLE—TIMBER.

Balance at commencement of the year	...	...	8,569	28,353
Received from the forests in sale depôts	5,095	14,766		
Received from the forests and sold locally	4,143	11,924		
Received from the forests by collection of drift	2,202	14,933		
Found in depôts	16	148		
Received by confiscation in depôts	1,580	5,123		
Ditto by re-measurement in depôts	...	145	13,036	47,039
Ditto by conversion in depôts	...	...	2,754	2,063
Ditto by transfer from sale depôts	...	...	203	564
Received by taken back in stock ...	...	...	22	18
GRAND TOTAL TIMBER ...	...	...	24,584	78,037

Removed by purchasers from sale depôt	8,138	26,638		
Sold locally	4,143	11,924	12,281	38,562
Given up to owners	16	1,378		
Given over to Eastern Bengal State Railway for experiment	9	9		
Reduced on re-measurements...	...	260		
Lost and used by department ...	706	2,547		
Rectification of error	5	13	736	4,207
Converted in depôts	...	...	187	4,261
Transferred to other sale depôts	...	...	203	564
Balance at close of the year ...	...	...	11,178	30,443
GRAND TOTAL TIMBER ...	...	...	24,584	78,037

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce out or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1889-90—continued.

PARTICULARS.	No. or quantity.	Cubic feet solid wood.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet solid wood.
FUEL.				
Balance at commencement of the year—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	7,760	13,580		
Charcoal ... ... Bags.	8,593	60,151	16,353	73,731
Julpigori Subdivision—				
Firewood (171 pieces) Mds.	487	852	487	852
Singbhoom Subdivision—				
Firewood ... ... Mds.	577	1,010		
Charcoal ... ... ,,	33	231	610	1,241
Total balance ...	...	...	17,450	75,824
Received in sale depôts—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	78,541	137,447		
Charcoal ... ... Bags.	23,365	163,555	101,906	301,002
Teesta Subdivision—				
Charcoal ... ... Mds.	1,730	12,110	1,730	12,110
Kurseong Subdivision—				
Charcoal ... ... Mds.	3,424	23,968	3,424	23,968
Singbhoom Subdivision—				
Firewood ... ... Mds.	6,265	10,964		
Charcoal ... ... ,,	27	189	6,292	11,153
Chittagong Division—				
Charcoal ... ... Mds.	75	525	75	525
Orissa Division—				
Firewood ... ... Mds.	937	1,640	937	1,640
Total received in sale depôts ...	...	...	114,364	350,398
Received from the forests and sold locally—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	303	530		
Charcoal ... ... Bags.	946	6,622	1,249	7,152
Teesta Subdivision—				
Charcoal ... ... Mds.	2,585	18,095	2,585	18,095
Kurseong Subdivision—				
Firewood ... ... Mds.	3,700	6,475	3,700	6,475
Total sold locally ...	...	...	7,534	31,722
Received by collection of drift in sale depôts—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Firewood ... ... Mds.	9,712	19,424	9,712	19,424
Julpigori Subdivision—				
Firewood (1,544 pieces) Mds.	4,117	7,205	4,117	7,205
Chittagong Division—				
Firewood (40 pieces) Mds.	130	228	130	228
Total drift ...	...	...	13,959	26,857
Found in depôts—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	575	1,006		
Charcoal ... ... Bags.	47	329		
Ditto dust ... Mds.	168	1,176	790	2,511
Kurseong Subdivision—				
Charcoal ... ... Mds.	45	315	45	315
Total found in depôts ...	...	...	835	2,826
Received by confiscation in depôts—				
Singbhoom Subdivision—				
Firewood ... ... Mds.	37	65	37	65
Sunderbuns Division—				
Firewood ... ... Mds.	1,641	2,872	1,641	2,872
Total confiscated in depôts ...	...	...	1,678	2,937
Received by purchase in depôts—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	1,300	2,275		
Charcoal ... ... Bags.	3,571	24,997	4,871	27,272
Removed by purchasers from depôts—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Firewood ... ... Mds.	9,707	19,414	9,707	19,414
Darjeeling Subdivision—				
Firewood ... ... Mds.	71,815	125,676		
Charcoal ... ... Bags.	24,933	174,531		
Ditto dust ... Mds.	168	1,176	96,916	301,383
Teesta Subdivision—				
Charcoal ... ... Mds.	1,730	12,110	1,730	12,110
Kurseong Subdivision—				
Charcoal ... ... Mds.	3,208	22,456	3,208	22,456
Julpigori Subdivision—				
Firewood (1,505 pieces) Mds.	3,519	6,158	3,519	6,158
Singbhoom Subdivision—				
Firewood ... ... Mds.	4,228	7,399		
Charcoal ... ... ,,	23	161	4,251	7,560
Sunderbuns Division—				
Firewood ... ... Mds.	571	999	571	999
Chittagong Division—				
Firewood (40 pieces) Mds.	130	228		
Charcoal ... ... ,,	58	406	188	634
Orissa Division—				
Firewood ... ... Mds.	708	1,239	708	1,239
Total removed by purchasers from sale depôts	...	...	120,798	371,953
Received from forests and sold locally (as per *contra*)	...	...	7,534	31,722
Lost and used by department—				
Darjeeling Subdivision—				
Firewood ... ... Mds.	2,750	4,813		
Charcoal ... ... Bags.	3,919	27,433	6,669	32,246
Kurseong Subdivision—				
Charcoal ... ... Mds.	1	7	1	7
Julpigori Subdivision—				
Firewood (17 pieces) Mds.	73	128	73	128
Singbhoom Subdivision—				
Firewood (dryage) ... Mds.	240	420		
Ditto (used by department) ... ,,	20	35	260	455
Total written off and used by department	...	...	7,003	32,836
Rectification of error—				
Orissa Division—				
Firewood ... ... Mds.	53	93	53	93
Transferred to other sale depôts (as per *contra*) ... ,,	...	...	5,433	26,461
Return of loan (as per *contra*) Charcoal ... ... Bags.	...	...	121	947
Balance at close of the year—				
Direction Division—				
(Bengal share of Gunduck drift)—				
Firewood ... ... Mds.	5	10	5	10
Darjeeling Subdivision—				
Firewood ... ... Mds.	14,339	25,093		
Charcoal ... ... Bags.	6,724	47,068	21,063	72,161
Kurseong Subdivision—				
Charcoal ... ... Mds.	260	1,820	260	1,820

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce out or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1889-90—continued.

PARTICULARS.	No. or quantity.	Cubic feet solid wood.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet solid wood.	PARTICULARS.	No. or quantity.	Cubic feet solid wood.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet solid wood.
				FUEL—*concld.*					
Received by loan in depôts—					Balance at close of the year—*concld.*				
Darjeeling Subdivision—					Julpigori Subdivision—				
Charcoal ... ... Bags.	121	847	121	847	Firewood (193 pieces) Mds.	1,012	1,771	1,012	1,771
Received by rectification of error in calculation—					Singbhoom Subdivision—				
Darjeeling Subdivision—					Firewood ... ... Mds.	2,391	4,185		
Firewood ... ... Mds.	728	1,274	728	1,274	Charcoal ... ... ,,	37	259	2,428	4,444
Received by transfer from sale depôts—					Sunderbuns Division—				
Darjeeling Subdivision—					Firewood ... ... Mds.	1,070	1,873	1,070	1,873
Firewood ... ,, Mds.	2,200	3,850	2,200	3,850	Chittagong Division—				
Kurseong Subdivision—					Charcoal ... ... Mds.	17	119	17	119
Charcoal ... ... Mds.	3,164	22,148	3,164	22,148	Orissa Division—				
Chittagong Division—					Firewood ... ... Mds.	176	308	176	308
Charcoal ... ... Mds.	69	483	69	483	Total balance ...	...	...	26,031	82,506
Total transferred from other sale depôts	...	...	5,433	26,481					
GRAND TOTAL FUEL ...	...	...	166,973	546,438	GRAND TOTAL FUEL ...		...	166,973	546,438

PARTICULARS.	Number.	Total of each head.	PARTICULARS.	Number.	Total of each head.
		BAMBOOS.			
Balance at commencement of the year—	No.	No.	Removed by purchasers from depôts—	No.	No.
Palamow Subdivision—			Palamow Subdivision—		
Bamboos	600,670		Bamboos	1,057,062	
Singbhoom Subdivision—			Do. ropes	100	
Bamboos	280		Singbhoom Subdivision—		
Orissa Division—			Bamboos	8,193	
Bamboos	40,550	641,500	Chittagong Division—		
Received from forests in depôts—			Bamboos	3,960	
Palamow Subdivision—			Orissa Division—		
Bamboos	699,125		Bamboos	300	1,069,614
Do. ropes	500				
Singbhoom Subdivision—			Sold locally (as per *contra*)—		
Bamboos	9,008	709,593	Bamboos	...	1,052
Received from forests and sold locally—			Lost and used by Department—		
Darjeeling Subdivision—			Palamow Subdivision—		
Bamboos	52		Bamboos	61,117	
Palamow Subdivision—			Do. ropes	200	
Bamboos	1,000	1,052	Singbhoom Subdivision—		
Received by collection of drift—			Bamboos	65	61,382
Chittagong Division—			Transferred to other sale depôts—		
Bamboos	3,960	3,960	Bamboos	...	257,125
Received by confiscation—			Balance at close of the year—		
Singbhoom Subdivision—			Palamow Subdivision—		
Bamboos	163	163	Bamboos	181,616	
Received by transfer from sale depôts—			Do. ropes	200	
Palamow Subdivision—			Singbhoom Subdivision—		
Bamboos	256,125		Bamboos	2,160	
Singbhoom Subdivision—			Orissa Division—		
Bamboos	1,000	257,125	Bamboos	40,250	224,226
Total Bamboos ...	...	1,613,399	Total Bamboos ...	...	1,613,399

Form No. 56.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government Agency and brought to sale depôts, or sold locally during the year 1889-90—continued.

OTHER MINOR PRODUCE.

Particulars.	Number or quantity.	Total of each head.	Particulars.	Number or quantity.	Total of each head.
	Mds.	Mds.		Mds.	Mds.
Balance at commencement of the year—			Removed by purchasers from sale depôts—		
Singbhoom Subdivision—			Singbhoom Subdivision—		
Sabai grass	63	63	Silk cocoons (1,353)	4	
Received from forests in sale depôts—			Sabai grass	38	
Kurseong Subdivision—			Do. rope (1,456 bundles)	36	
Borla fibre	1		Thatch grass (1,693 do.)	42	
Hazaribagh Subdivision—			Khejur leaves (43 do.)	1	
Silk cocoons (No. 13,865)	10		Hazaribagh Subdivision—		
Singbhoom Subdivision—			Silk cocoons (No. 2,850)	2	
Silk cocoons (No. 1,041)	3		Chittagong Division—		
Thatch grass (1,893 bundles)	46	60	Canes (200)	10	
Received from forests and sold locally—			Sun-grass (484 bundles)	154	287
Darjeeling Subdivision—			Received from forests and sold locally—		
Fodder grass	1,552		Darjeeling Subdivision—		
Palamow Subdivision—			Fodder grass	1,552	
Sabai grass (8,848 bundles)	4,424		Palamow Subdivision—		
Mahua flowers	8		Sabai grass (8,848 bundles)	4,424	
Singbhoom Subdivision—			Mahua flowers	8	
Silk cocoons (12,886), including 300 confiscated	43	6,027	Singbhoom Subdivision—		
Received by collection of drift—			Silk cocoons (No. 12,886)	43	6,027
Chittagong Division—			Written off as destroyed and used by Department—		
Sun-grass (484 bundles)	154	154	Kurseong Subdivision—		
Received by confiscation in depôts—			Borla fibre	1	
Singbhoom Subdivision—			Palamow Subdivision—		
Silk cocoons (312)	1		Lahasi ropes (15)	...	1
Sabai grass	20		Balance at close of the year—		
Do. rope (1,328 bundles)	38		Hazaribagh Subdivision—		
Khejur leaves (43 do.)	1		Silk cocoons (No. 13,845)	10	
Chittagong Division—			Palamow Subdivision—		
Cane (200)	10	70	Lahasi ropes (27)	...	
Received by purchase in depôts—			Singbhoom Subdivision—		
Palamow Subdivision—			Sabai grass	45	
Lahasi ropes (42)	...		Do. ropes (72 bundles)	2	
Hazaribagh Subdivision—			Thatch grass (200 do.)	4	
Silk cocoons (2,830)	2	2			61
Grand total Other Produce ...	...	6,376	Grand total Other Produce ...	...	6,376

MISCELLANEOUS ARTICLES.

	No.	No.		No.	No.
Balance at commencement of the year—	...	...	Removed by purchasers—		
Received from forests—			Darjeeling Subdivision—		
Buxa Subdivision—			Country cart	1	
Elephant tusks	2	2	Buxa Subdivision—		
Received by confiscation—			Elephant tusks	2	
Darjeeling Subdivision—			Singbhoom Subdivision—		
Country cart	1		Country carts	2	
Singbhoom Subdivision—			Balance at close of the year—		
Country carts...	2		Sunderbuns Division—		
Sunderbuns Division—			Country axes	2	
Country axes	2		Do. *dahs*	3	
Do. *dahs*	3	8			5
Grand Total Miscellaneous Articles	...	10	Grand Total Miscellaneous Articles	...	10

Form No. 57A.

FOREST DEPARTMENT, BENGAL.

Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1889-90.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
TIMBER.			Rs.			Rs.	Rs.	Rs.	
Direction Division.									
Miscellaneous	...	...	...	907	2,974	995	995	...	Bengal share of Gunduck drift.
Darjeeling Subdivision.									
Scantling, various	88	177	110	2,703	2,343	1,723	1,613	...	
Teesta Subdivision.									
Sleepers, sál	230	307	230	230	306	230	...	...	
Poles	7	...	...	7	...	...	...	...	
Total ...	237	307	230	237	.306	230	...	...	

Form No. 57A.

FOREST DEPARTMENT, BENGAL.

Abstract showing the value of Timber and other Produce at Sale Depôt for the year 1889-90—continued.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close to the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
Kurseong Subdivision.									
Scantling	64	59	20	20	16	8	...	12	
Julpigori Subdivision.									
Sál logs	...	...	...	16	530	530	...	...	
,, poles	...	...	...	3	12	8	...	...	
Total ...	...	...	...	19	542	538	538	...	
Buxa Subdivision.									
Logs	237	8,405	5,309	219	7,845	5,884	...	...	
Sleepers	3,190	4,263	798	2,548	3,429	637	...	...	
Scantling	291	234	146	429	431	215	...	...	
Poles and slabs	335	380	84	243	...	61	...	...	
Total ...	4,053	13,372	6,337	3,439	11,705	6,797	460	...	
Singbhoom Subdivision.									
Sleepers	1,967	6,108	5,901	1,532	4,803	4,803	...	...	
Scantling	667	1,704	1,704	143	204	204	...	...	
Poles	981	981	245	970	970	243	...	...	
Slabs and pieces	8	7	4	1	1	1	...	...	
Total ...	3,623	8,800	7,854	2,646	5,978	5,251	...	2,603	
Sunderbuns Division.									
Logs	88	924	932	32	263	232	...	...	
Scantling	125	59	64	33	17	20	...	...	
Posts	...	...	...	842	469	140	...	...	
Teak planks	42	8	16	34	6	10	...	...	
Boats	3	...	95	2	875	100	...	...	
Total ...	258	991	1,097	943	1,630	502	...	595	
Chittagong Division.									
Boats	...	...	...	2	99	10	...	...	
Scantling	2	4	2	...	...	...	...	...	
Posts	...	...	...	4	8	2	...	...	
Saplings	...	...	...	28	28	7	...	...	
Total ...	2	4	2	34	185	19	17	...	
Orissa Division.									
Logs	151	4,112	900	153	4,458	557	...	...	
Sál scantling	22	18	7	22	18	4	...	...	
,, posts	50	468	12	34	203	56	...	...	
Other ,, ...	21	45	1	21	45	1	...	...	
Total ...	244	4,643	980	230	4,814	618	...	362	
Total Timber ...	8,569	28,353	16,630	11,178	30,443	16,681	...	51	
FUEL.									
Direction Division.									
Firewood ... ... Mds.	...	...	...	5	10	1	1	...	Bengal share of Gunduck drift.
Darjeeling Subdivision.									
Firewood ... ... Mds.	7,760	13,580	2,545	14,339	25,093	4,302	...	...	
Charcoal ... ... Bags.	8,593	60,151	8,593	6,724	47,068	6,724	...	...	
Total ...	16,353	73,731	11,138	21,063	72,161	11,026	...	112	
Kurseong Subdivision.									
Charcoal ... ... Mds.	...	...	...	260	1,820	260	260	...	
Julpigori Subdivision.									
Firewood ... ... Mds.	487	852	95	1,012	1,771	202	107	...	
Singbhoom Subdivision.									
Firewood ... ... Mds.	577	1,010	62	2,391	4,185	448	...	...	
Charcoal ... ... ,,	33	231	33	37	259	37	...	...	
Total ...	610	1,241	95	2,428	4,444	485	390	...	
Sunderbuns Division.									
Firewood ... ... Mds.	...	...	...	1,070	1,873	220	220	...	
Chittagong Division.									
Charcoal ... ... Mds.	...	...	...	17	119	17	17	...	
Orissa Division.									
Firewood ... ... Mds.	...	...	...	176	308	11	11	...	
Total Fuel ... Mds.	17,450	75,824	11,328	26,031	82,506	12,222	894	...	
BAMBOOS.									
Palamow Subdivision	600,670	...	3,604	181,816	...	611	...	2,693	Includes 200 bamboo ropes value Rs. 2.
Singbhoom Subdivision ...	286	...	5	2,160	...	43	38	...	
Orissa Division	40,550	...	115	40,250	...	25	...	90	
Total Bamboos ...	641,506	...	3,724	224,226	...	979	...	2,745	
Other Minor Produce.									
Hazaribagh Subdivision.									
Silk cocoons	...	...	...	13,845	...	220	220	...	
Palamow Subdivision.									
Lahasi ropes	...	...	...	27	...	3	3	...	
Singbhoom Subdivision Mds.	63	...	8	51	...	16	8	...	
Total other Minor Produce ...	63	...	8	13,923	...	239	231	...	
Miscellaneous Articles.									
Sunderbuns Division	...	...	...	5	...	4	4	...	
Grand Total Value ...	...	...	31,690	...	...	30,125	...	1,565	

FORM No. 57B.

FOREST DEPARTMENT, BENGAL.

Abstract showing the Value of Live-stock, Stores, Tools and Plant for the year 1889-90.

DESCRIPTION.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		REMARKS.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Direction Division.							
Stores (mathematical) ...	18	420	16	282	...	...	
Do. (miscellaneous) ...	4	14	4	5	...	...	
Furniture	44	389	58	599	...	...	
Tents	3	300	3	280	...	...	
Total ...	69	1,103	81	1,166	63	...	
Working Plans Division.							
Stores (mathematical) ...	...	...	20	183	...	...	
Do. (miscellaneous) ...	59	80	59	70	...	...	
Office boxes	2	15	2	10	...	...	
Furniture	7	105	7	90	...	...	
Total ...	68	200	88	353	153	...	
Darjeeling Division.							
Furniture	6	70	6	60	...	...	
Stores (miscellaneous) ...	1	6	1	5	...	...	
Iron safe	1	38	1	38	...	...	
Tents	2	30	2	25	...	...	
Total ...	10	144	10	128	...	16	
Darjeeling Subdivision.							
Bungalow (inspection) ...	7	5,085	12	7,500	...	...	
Range houses	5	1,600	5	1,500	...	...	
Other do.	38	400	38	350	...	...	
Cattle pound	1	150	1	120	...	...	
Fuel godowns	9	3,275	8	2,000	...	...	
Dumpy level	1	110	1	100	...	...	
Other stores (mathematical)	15	300	34	323	...	...	
Ditto (miscellaneous)	...	...	470	700	...	...	
Iron safes	7	250	8	280	...	...	
Furniture	106	450	112	400	...	...	
Tent	1	15	1	15	...	...	
Bullocks	...	...	10	300	...	...	
Total ...	190	11,635	706	13,505	1,930	...	
Teesta Subdivision.							
Bungalow (head-quarters)	1	2,500	1	2,300	...	...	
Ditto (inspection) ...	4	1,800	4	1,700	..	...	
Range houses	4	1,000	4	900	...	...	
Other do.	6	200	42	300	...	...	
Stores (mathematical) ...	11	60	13	40	...	...	
Do. (miscellaneous) ...	190	100	138	80	...	...	
Iron safes	5	120	5	100	...	...	
Cash or office boxes ...	4	20	3	12	...	...	
Furniture	21	150	55	200	...	...	
Tent	1	30	1	15	...	...	
Total ...	253	5,980	265	5,647	...	333	
Kurseong Subdivision.							
Bungalow (head-quarters)	1	3,700	1	3,500	...	...	
Ditto (inspection) ...	6	5,500	4	5,000	...	...	
Range houses	5	500	4	250	...	...	
Other do. (at head-quarters).	6	5,500	3	5,000	...	...	
Other houses in ranges ...	25	150	28	150	...	...	
Elephant shed	1	150	1	130	...	...	
Cattle pound	1	225	1	200	...	...	
Stores (mathematical) ...	2	151	33	200	...	...	
Do. (miscellaneous) ...	45	68	329	200	...	...	
Iron safes	7	140	6	100	...	...	
Chubb's padlock	1	8	1	8	...	...	
Ordinary do.	...	...	7	2	...	...	
Cash or office boxes ...	2	30	2	25	...	...	
Furniture	96	708	122	800	...	...	
Tents	..	...	2	280	...	...	
Elephant	1	800	1	1,200	...	...	
Total ...	205	17,630	545	17,045	...	585	
Julpigori Division.							
Despatch boxes	...	...	1	28	...	...	
Brass seal	...	...	1	2	...	...	
Total ...	...	...	2	30	30	...	
Julpigori Subdivision.							
Bungalow (head-quarters)	1	600	1	600	...	...	
Ditto (inspection) ...	...	...	2	100	...	...	
Range houses	4	300	4	300	...	...	
Other buildings at head-quarters.	6	600	6	100	...	...	
Other buildings in ranges	23	640	29	400	...	...	
Stores (mathematical) ...	5	40	10	60	...	...	
Do. (miscellaneous) ...	94	150	108	200	...	...	
Iron safes	3	100	4	135	...	...	
Despatch box	1	20	1	15	...	...	
Furniture	44	150	47	130	...	...	
Tent	1	200	1	170	...	...	
Elephant	1	2,125	1	2,500	...	...	
Total ...	183	4,925	214	4,710	...	215	
Buxa Subdivision.							
Bungalow (head-quarters)	1	4,500	1	6,000	..	...	
Ditto (inspection) ...	4	1,618	4	1,500	...	...	
Range houses	4	300	3	250	...	...	
Other do.	47	360	48	300	...	...	
Store godown	1	10	1	10	...	...	
Elephant shed	1	35	1	30	...	...	
Stores (mathematical) ...	19	100	23	80	...	...	
Do. (miscellaneous) ...	690	770	679	700	...	...	
Iron safes	6	150	6	150	...	...	
Despatch boxes	2	15	2	15	...	...	
Furniture	57	300	57	250	...	...	
Tent	1	192	1	100	...	...	
Elephants	10	18,625	10	16,425	...	...	
Total ...	843	26,975	836	25,870	...	1,105	

DESCRIPTION.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		REMARKS.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Chota Nagpore Division.							
Stores (mathematical) ...	65	375	41	350	...	...	
Do. (miscellaneous) ...	19	15	17	10	...	...	
Iron safe	1	160	1	160	...	...	
Furniture	46	350	45	330	...	...	
Tents	2	240	2	210	...	...	
Elephant	1	2,000	1	2,000	...	...	
Total ...	134	3,140	107	3,000	...	80	
Palamow Subdivision.							
Bungalow (head-quarters)	1	1,000	1	1,600	...	...	
Ditto (inspection) ...	8	1,872	9	1,900	...	...	
Range houses	4	268	4	250	...	...	
Other do.	19	475	18	450	...	...	
Stores (mathematical) ...	39	292	39	270	...	...	
Do. (miscellaneous) ...	50	153	49	140	...	...	
Iron safe	1	40	1	40	...	...	
Despatch boxes	6	105	6	100	...	...	
Wooden office boxes ...	6	51	6	40	...	...	
Furniture	30	247	30	240	...	...	
Tents	2	300	3	300	...	...	
Elephant	1	1,200	...	...	...	...	
Total ...	167	6,903	167	5,330	...	1,573	
Hazaribagh Subdivision.							
Range houses	2	480	2	450	...	...	
Other do.	5	300	5	250	...	...	
Stores (mathematical) ...	30	178	32	170	...	...	
Do. (miscellaneous) ...	72	124	70	120	...	...	
Iron safe	1	40	1	40	...	...	
Despatch box	1	40	1	40	...	...	
Furniture	35	188	35	175	...	...	
Total ...	155	1,350	153	1,245	...	105	
Singbhoom Subdivision.							
Bungalow (head-quarters)	1	3,500	1	3,300	...	...	
Range houses	11	2,117	11	2,000	...	...	
Other do. in ranges ...	32	627	31	600	...	...	
Elephant shed	1	120	1	100	...	...	
Stores (mathematical) ...	44	410	44	400	...	...	
Do. (miscellaneous) ...	1,478	4,702	1,461	4,700	...	...	
Iron safes	5	200	5	200	...	...	
Furniture	81	517	79	500	...	...	
Tents	3	145	2	60	...	...	
Elephant	1	1,800	1	1,000	...	...	
Buffaloes	4	80	3	60	...	...	
Total ...	1,661	14,308	1,639	12,920	...	1,388	
Sunderbuns Division.							
Revenue station-houses ...	40	7,685	40	6,900	...	...	
Stores (mathematical) ...	104	538	104	500	...	...	
Do. (ordnance)	48	97	48	90	...	...	
Do. (ships)	3,511	2,020	3,309	1,875	...	...	
Do. (other)	1,081	1,954	1,260	2,000	...	...	
Iron safes	27	506	29	650	...	...	
Chubb's padlocks	25	165	25	150	...	...	
Furniture	260	984	264	1,200	...	...	
Steamer *Cygnet*	1	23,632	1	23,200	...	...	
Barge	1	5,436	1	5,100	...	...	
Jolly boats	3	916	3	825	...	...	
Steamer *Seal*	1	31,178	1	30,800	...	...	
Station boats	44	11,319	30	20,700	...	...	
Total ...	5,146	86,490	5,141	93,490	7,000	...	
Chittagong Division.							
Bungalow (head-quarters)	1	2,100	1	1,900	...	...	
Ditto (inspection) ...	1	150	1	140	...	...	
Range houses	5	470	5	450	...	...	
Other buildings at head-quarters.	9	1,300	8	1,200	...	...	
Other buildings in ranges	103	1,977	103	1,900	...	...	
Stores (mathematical) ...	14	335	14	320	...	...	
Do. (miscellaneous) ...	621	1,488	628	1,500	...	...	
Iron safes	16	454	17	480	...	...	
Furniture	99	829	111	960	...	...	
Boats	9	146	10	200	...	...	
Total ...	878	9,249	898	9,050	...	199	
Orissa Division.							
Bungalow (sub-divisional head-quarters).	2	3,342	2	3,200	...	...	
Range houses	8	1,600	8	1,500	...	...	
Other buildings	44	1,144	49	1,250	...	...	
Stores (mathematical) ...	59	304	59	190	...	...	
Do. (miscellaneous) ...	454	1,363	477	1,380	...	...	
Building materials ...	556	18	150	5	...	...	
Iron safes	9	380	9	300	...	...	
Furniture	61	476	70	550	...	...	
Tent	1	140	1	125	...	...	
Elephants	2	3,300	2	3,300	...	...	
Buffaloes	10	167	10	160	...	...	
Total ...	1,206	12,214	837	12,120	...	94	
GRAND TOTAL ...	11,168	2,02,246	11,690	2,05,750	3,513	...	
ABSTRACT.							
Total Value.							
Timber and other produce ...	...	31,690	...	30,125	...	1,565	
Live-stock, stores, tools and plant. ...	...	2,02,246	...	2,05,759	3,513	...	
GRAND TOTAL ...	...	2,33,936	...	2,35,884	1,948	...	

DARJEELING,
The 16th July 1890.

A. L. HOME,
Conservator of Forests, Bengal.

ANNUAL FORM No. 58.

FOREST DEPARTMENT, BENGAL.

Summary of Revenue of the different Divisions during 1889-90.

BUDGET HEADS.	Direction.	Working Plans Division.	Darjeeling Division.	Darjeeling Sub-division.	Teesta Sub-division.	Kurseong Sub-division.	Julpigori Division.	Julpigori Sub-division.	Buxa Sub-division.	Chota Nagpore Division.	Palamow Sub-division.	Hazaribagh Sub-division.	Singbhoom Sub-division.	Sunderbuns Division.	Chittagong Division.	Orissa Division.	TOTAL.
RECEIPTS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—Timber and other produce removed from the forests by Government agency—																	
a. Timber ...	...	...	...	...	...	384 0 6	...	2,910 5 0	9,587 7 0	...	...	...	2,979 7 7	.....	...	461 15 0	16,323 3 1
b. Firewood and charcoal ...	...	...	...	47,037 14 9	3,184 1 0	3,504 0 0	...	...	...	...	...	...	640 13 6	.....	47 12 6	42 2 7	54,456 12 4
c. Bamboos ...	...	...	...	26 0 0	...	...	...	...	...	...	6,880 0 2	...	105 8 9	.....	...	1 14 0	7,013 6 11
d. Sandal-wood ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	.....	.....
e. Grass and other minor produce	...	...	...	16 0 6	...	...	...	...	600 0 0	...	24 13 10	30 5 0	644 10 3	.....	...	.....	1,315 13 7
II.—Timber and other produce removed from the forests by consumers or purchasers—																	
...	...	...	...	...	...	...	...	...	...	...	...	...	326 12 8	.....	...	3,488 12 0	3,815 8 8
a. Timber ...	...	...	...	17,049 13 3	7,156 10 0	6,872 14 9	...	12,577 1 0	19,763 12 0	...	...	34 11 0	1,483 7 1	2,77,472 9 9	23,462 4 10	353 1 3	3,66,216 4 11
b. Firewood and charcoal ...	...	...	...	10,698 4 6	2,709 15 0	4,126 3 7	...	4,444 13 0	92 8 0	...	...	91 2 0	2,239 11 0	1,27,689 1 0	293 0 1	1,417 0 6	1,53,801 10 8
c. Bamboos ...	...	...	...	403 6 0	1,127 8 5	2,051 10 0	...	...	21 12 0	...	10 6 3	175 4 0	146 15 2	.....	32,531 6 8	2,246 2 3	38,714 6 9
d. Grazing and fodder grass ...	...	...	7 0 0	5,426 15 0	2,052 6 9	913 15 9	...	631 14 0	453 14 0	...	690 9 0	117 8 9	279 7 0	.....	...	505 6 9	11,079 1 0
e. Other minor produce	...	...	323 6 0	185 7 0	423 0 9	335 13 6	...	218 14 0	143 6 3	...	323 4 6	1,136 8 7	598 9 4	68,747 11 9	9,004 3 0	1,401 11 6	82,842 0 2
III.—Drift and waif wood and confiscated forest produce	5,818 15 10	...	...	86 12 3	1,353 12 0	441 7 11	...	3,617 2 0	84 4 6	...	...	...	56 15 3	97 0 0	409 12 9	3 12 6	11,969 15 0
IV.—Revenue from forests not managed by Government—																	
a. Duty on foreign timber and other forest produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	.....	.....
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	.....	.....
V.—Miscellaneous—																	
a. Fines and forfitures ...	...	...	...	10 0 0	...	...	...	...	...	...	...	...	...	.....	...	.....	10 0 0
b. Refunds ...	...	...	...	25 10 0	6 0 0	...	...	19 0 0	29 3 6	...	30 12 11	...	10 13 4	11 1 10	1,838 13 5	0 1 2	1,971 8 2
c. Other sources ...	...	...	...	333 2 9	631 10 5	333 4 0	...	215 15 6	529 14 3	...	88 4 0	2 4 0	155 1 8	11,440 9 11	5,450 13 6	6 13 9	19,187 13 9
TOTAL RECEIPTS ...	5,818 15 10	...	330 6 0	81,299 6 0	18,645 0 4	18,963 6 0	...	24,635 0 6	31,296 1 6	...	8,048 2 8	1,587 11 4	9,668 4 7	4,85,458 2 3	73,038 2 9	9,928 13 3	7,68,717 9 0

Note.—Correctness of figures not confirmed up to 16th July 1890.

CALCUTTA,
The 6th June 1890.

J. BRIDGNELL,
Chief Superintendent, In charge, Forest Account Branch.

FORM No. 58.

FOREST DEPARTMENT, BENGAL.

Summary of Expenditure of the different Divisions during 1889-90.

BUDGET HEADS.	Direction.	Working Plans Division.	Darjeeling Division.	Darjeeling Sub-division.	Teesta Sub-division.	Kurseong Sub-division.	Julpigori Division.	Julpigori Sub-division.	Buxa Sub-division.	Chota Nagpore Division.	Palamow Sub-division.	Hazaribagh Sub-division.	Singbhoom Sub-division.	Sunderbans Division.	Chittagong Division.	Orissa Division.	TOTAL.
A.—CONSERVANCY AND WORKS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
I.—Timber and other produce removed from the forests by Government Agency—																	
a. Timber	...	...	...	20 8 0	...	190 9 0	...	1,081 2 0	3,890 10 2	...	...	...	1,826 0 11	...	...	533 6 9	7,543 4 10
b. Firewood and charcoal	...	...	...	33,587 2 7	2,735 6 8	3,082 14 9	...	...	...	...	...	...	771 11 8	...	51 2 3	10 3 6	40,238 9 5
c. Bamboos	...	...	...	...	...	...	...	...	...	...	3,373 9 3	...	66 0 5	...	...	...	3,339 9 8
d. Sandal-wood ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce ...	...	...	...	...	...	2 11 0	...	...	...	...	12 9 1	134 4 9	100 12 0	...	...	...	250 4 10
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	...	1,596 5 10	...	380 5 10	...	...	...	..	...	...	759 11 10	32,361 9 5	672 13 7	...	35,670 14 6
III.—Drift and waif wood and confiscated forest produce	2,301 10 5	...	..	...	91 0 0		...	685 0 3	...	...	...	...	0 1 6	...	189 14 6	...	3,267 10 8
IV.—Revenue from forests not managed by Government—																	
a. Duty on foreign timber and other forest produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	.....
VI.—Live-stock, stores, tools and plant—																	
a. Purchase of cattle .	..	...	...	300 0 0	...	...	...	...	...	...	...	...	...	...	...	...	300 0 0
b. Feed and keep of cattle	...	..	...	2 6 6	...	458 10 4	...	447 8 2	4,350 3 0	482 7 8	52 6 8	...	736 7 8	...	...	939 8 11	7,469 10 11
c. Purchase of stores, tools and plant .	39 0 0	188 1 0	...	651 14 0	88 0 0	291 8 0	28 8 0	137 6 0	149 4 6	0 9 0	0 4 0	...	5 0 0	9,603 9 1	327 14 0	90 0 0	11,600 13 7
VII.—Communications and buildings—																	
a. Roads and bridges	...	...	...	2,250 8 9	1,097 0 4	839 8 6	...	773 10 6	267 1 3	...	745 14 9	249 12 0	901 11 0	...	439 0 6	79 10 11	7,647 14 6
b. Buildings	...	...	...	4,284 0 9	676 9 11	1,257 9 3	...	932 13 2	2,464 0 9	...	614 10 5	62 6 0	654 8 6	479 8 6	1,803 12 7	675 13 9	13,905 13 7
c. Other works ...	...	...	...	...	...	13 15 9	...	4 4 0	...	...	22 3 4	...	...	...	...	...	40 6 4
VIII.—Demarcation, improvement and extension of forests—																	
a. Demarcation ...	...	...	...	580 7 3	94 4 0	26 15 0	...	1,052 2 0	1,120 14 0	...	46 5 6	75 7 3	1,667 4 0	10 0 0	647 0 0	144 13 9	5,465 8 9
b. Compensation for land and rights...	...	...	...	...	...	...	...	...	...	...	...	...	240 0 0	...	...	...	240 0 0
c. Surveys and working plans .	...	384 11 0	...	...	...	12 8 0	...	...	...	...	6 2 9	...	*1,305 8 0	...	191 12 0	1 15 6	*1,903 8 6
d. Sowing and planting	...	...	...	1,507 6 5	11 6 0	215 8 11	...	26 4 0	76 2 9	2 0 0	14 14 6	6 4 6	34 0 6	...	3,652 4 8	1,057 15 5	6,604 5 8
e. Protection from fire	...	...	...	16 8 0	1,657 15 9	3,529 8 10	...	1,726 13 11	2,313 5 1	...	625 5 0	210 15 9	1,964 1 4	...	25 11 0	4,664 13 3	16,735 9 5
f. Other works ...	...	...	...	68 11 6	100 1 0	83 6 3	...	170 1 4	435 11 6	...	0 6 0	30 0 0	123 14 0	...	79 6 0	234 14 6	1,325 8 1
IX.—Miscellaneous—																	
a. Refunds	...	...	...	...	...	6 2 0	...	...	2 0 0	...	112 0 0	...	...	60 15 0	...	...	181 1 0
b. Law charges ...	...	...	...	53 8 0	...	...	...	2 8 0	...	...	3 15 0	...	0 12 6	16 0 0	38 0 0	...	114 3 6
c. Other charges ...	52 4 6	2 12 0	...	280 1 0	171 3 0	79 14 0	...	101 11 0	255 3 0	0 1 0	36 13 6	3 8 0	44 0 6	2,629 10 6	640 11 0	149 9 3	4,427 6
Total A.—Conservancy and Works	2,392 14 11	575 8 0	...	45,199 0 7	6,722 15 11	10,471 10 8	28 8 0	7,141 4 4	15,304 8 0	485 1 8	5,567 7 0	772 9 6	*11,204 10 4	45,161 4 6	8,659 6 1	8,582 12 9	*1,68,389 10 3

* Corrected as per Comptroller and Auditor-General's (Forests) No. 902, dated 10th July 1890.
Note.—Correctness of figures not confirmed up to 16th July 1890.

CALCUTTA,
The 7th June 1890.

J. BRIDGNELL,
Chief Superintendent,
In charge, Forest Account Branch.

FORM No. 58.

FOREST DEPARTMENT, BENGAL.

Summary of Expenditure of the different Divisions during 1889-90.

BUDGET HEADS.	Direction.	Working Plans Division.	Darjeeling Division.	Darjeeling Sub-division.	Teesta Sub-division.	Kurseong Sub-division.	Julpigori Division.	Julpigori Sub-division.	Buxa Sub-division.	Chota Nagpore Division.	Palamow Sub-division.	Hazaribagh Sub-division.	Singbhoom Sub-division.	Sunderbuns Division.	Chittagong Division.	Orissa Division.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Brought forward. Total A., Conservancy and Works	2,392 14 11	575 8 0	...	45,199 0 7	6,722 15 11	10,471 10 8	28 8 0	7,141 4 4	15,304 8 0	485 1 8	5,567 7 0	372 9 6	*11,204 10 4	45,161 4 6	8,659 6 1	8,582 12 9	*1,68,289 10 3
B.—ESTABLISHMENT.																	
I.—Salaries—																	
a. Conservators	16,009 10 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16,009 10 10
b. Superior officers ...	1,891 15 0	7,650 0 0	10,450 0 0	6,707 1 5	1,500 0 0	3,300 8 7	7,800 0 0	2,400 0 0	...	7,708 11 4	2,600 0 0	...	3,031 2 11	13,050 0 0	6,400 0 0	10,053 6 2	84,542 13 5
c. Subordinate Forest and Depôt establishments	541 4 8	...	...	4,594 0 4	4,383 10 11	5,390 3 2	...	4,236 5 7	3,942 13 1	...	2,940 8 4	876 12 9	4,280 6 1	13,332 3 8	10,413 7 6	5,175 2 10	60,106 14 11
d. Office establishments ...	4,754 10 11	873 12 0	545 15 10	1,062 1 5	775 8 0	808 14 11	...	646 0 0	970 0 0	1,340 4 8	574 2 8	...	630 9 8	3,177 6 8	1,355 8 9	1,398 6 8	18,913 6 2
e. Deputation and special allowances	746 5 1	527 2 10	110 1 2	203 11 11	...	7 0 0	...	7 11 9	...	...	...	...	...	185 15 8	1,200 0 0	...	2,988 0 3
II.—Travelling allowances—																	
a. Conservators	2,602 1 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,602 1 1
b. Superior officers ...	196 14 4	3,228 2 0	2,117 2 0	2,533 7 6	770 2 10	1,966 13 0	...	464 2 4	1,566 10 0	1,441 8 0	579 0 0	...	609 13 0	1,159 0 0	2,850 0 0	671 8 0	20,154 3 0
c. Subordinate Forest and Depôt establishments	252 15 8	...	...	1,114 6 6	481 15 6	1,279 11 5	...	356 15 6	570 15 9	...	378 6 8	79 10 8	†389 10 8	179 12 6	1,030 8 4	838 12 4	†6,980 13 6
d. Office establishments ...	741 15 4	165 8 10	23 9 10	82 15 6	27 8 0	150 14 10	...	20 7 0	57 11 9	90 14 8	15 0 0	...	11 10 8	142 10 6	124 14 0	48 4 8	1,704 1 7
III.—Contingencies—																	
a. Stationery	...	...	33 0 0	...	...	...	...	...	...	0 12 0	...	...	2 6 0	...	4 11 6	0 8 6	41 6 0
b. Carriage of tents and records	125 4 6	16 12 0	12 1 10	58 5 6	24 8 0	7 12 0	...	13 8 0	11 8 0	25 2 0	34 5 1	1 2 0	5 0 6	94 0 9	9 10 0	32 14 0	471 14 2
c. Rents, rates and taxes...	...	...	...	636 3 0	...	145 10 0	...	153 8 0	2 7 0	402 0 0	49 8 0	6 0 0	59 0 0	1,248 5 3	5 12 0	372 0 0	3,080 5 3
d. Pay of police guards ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Official Postage	267 8 0	14 9 0	44 13 6	100 1 6	56 13 6	148 6 0	50 0 0	80 12 6	148 1 6	72 9 0	34 5 0	17 5 0	87 14 6	536 2 9	295 4 6	172 7 0	2,1[illegible] 1 5
f. Sundries	352 7 9	83 12 0	108 12 2	151 9 10	85 12 6	75 4 0	1 0 0	115 2 7	150 1 3	93 1 6	123 0 10	7 10 0	†172 8 9	397 1 9	160 10 0	194 5 0	†2,27[illegible] 3 11
*Total B., Establishments ...	28,483 1 2	12,559 10 8	13,445 8 4	17,244 0 5	8,107 15 3	13,281 1 11	7,851 0 0	8,524 9 3	7,420 4 4	11,174 15 2	7,328 4 7	988 8 5	9,280 2 9	33,502 11 4	23,850 6 7	18,952 11 2	2,21,994 15 4
GRAND TOTAL OF EXPENDITURE	30,876 0 1	13,135 2 8	13,445 8 4	62,443 1 0	14,830 15 2	23,752 12 7	7,879 8 0	15,665 13 7	22,724 12 4	11,660 0 10	12,896 11 7	1,761 1 11	*20,484 13 1	78,663 15 10	32,509 12 8	27,535 7 11	*3,90,264 9 7

* Corrected as per Comptroller and Auditor-General (Forests), No. 802, dated 10th July 1890.
† Ditto ditto ditto, No. 632, dated 9th July 1890.
Note.—Correctness of figures not confirmed up to 16th July 1890.

CALCUTTA,
The 7th June 1890.

J. BRIDGNELL,
Chief Superintendent, In charge, Forests Account Branch.

FORM No. 59.

FOREST DEPARTMENT, BENGAL.

Account Current for the year 1889-90.

	Rs. A. P.	Rs. A. P.
To cash balance	...	870 6 0
„ VIII.—Assessed taxes—		
Income Tax—Deductions from salaries	...	2,981 15 6
„ Revenue as per Annual Summary, Form No. 58	...	7,68,717 9 0
„ Service Funds—		
Civil Fund—Ordinary, Bengal	...	
„ Additional, Bengal ...	...	
Military Fund—Bengal	...	
„ „ Madras	...	
„ Orphan Fund—Bengal ...	...	
Uncovenanted Service Family Pension Fund—Bengal	4,197 2 0	
General Family Pension Fund ...	345 0 0	
Hindu Family Annuity Fund ...	...	
		4,542 2 0
„ Deposits	...	286 8 11
„ Forest cash remittances—Local—		
Forest cheques drawn	3,76,836 11 0	
Inter-Divisional Transfers	12,708 8 4	
		3,89,545 3 4
„ Advances recoverable	...	2,65,142 11 4
„ Suspense	...	730 5 0
„ Account Current (other Governments)—		
Remittances from Government of India	*3,815 2 8	
Remittances from Government of North-Western Provinces and Oudh	2,318 14 5	
Remittances from Government of Central Province	1 12 6	
		*6,135 13 7
„ Inter-Departmental Transfers—		
Public Works Department, Northern Bengal State Railway	8 5 0	
Public Works Department, Ordinary	158 4 0	
Military Department	82 5 1	
Marine Department	5,413 4 8	
Civil Department—		
Jail	3,673 5 0	
Mathematical Instrument Department	530 6 0	
Miscellaneous	1,400 0 7	
Survey of India—Maps	120 6 0	
		11,334 4 4
Total		*14,50,286 15 0

	Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary, Form No. 58	...	*3,00,264 9 7
„ Deposits	...	577 14 0
„ Forest cash remittances—Local—		
Remittances to Treasuries	7,53,457 0 2	
Inter-Divisional Transfers	12,701 10 4	
		7,66,158 10 6
„ Advances recoverable	...	2,66,861 5 6
„ Suspense	...	3,203 6 6
„ Account current (other Governments)—		
Remittances to the Government of India	195 13 6	
Remittances to the Government of North-Western Provinces and Oudh	5,818 15 10	
Remittances to the Government of Central Provinces	150 0 0	
Remittances to the Government of Assam	62 12 0	
		6,227 9 4
„ Inter-Departmental Transfers—		
Public Works Department, Ordinary	1,121 12 11	
„ „ Northern Bengal State Railway	22 0 0	
Public Works Department, Bengal-Nagpore Railway	484 0 8	
Military Department, Bengal ...	12,658 8 6	
Civil Department—		
Jails	989 12 0	
Mathematical Instrument Department	30 0 0	
Miscellaneous	109 2 5	
Rewards for killing tigers	390 0 0	
Marine Department...	885 0 4	
		16,690 4 10
„ Cash balance	...	303 2 9
Total		*14,50,286 15 0

* Corrected as per Comptroller and Auditor-General (Forests) letter No. 802, dated 10th July 1890.
NOTE.—Correctness of figures not confirmed up to 16th July 1890.

CALCUTTA,
The 188 .

J. BRIDGNELL,
Chief Superintendent, In charge, Forest Account Branch.

FORM No. 60.

FOREST DEPARTMENT, BENGAL.

Revenue received and Outstandings on account of Revenue during 1889-90.

DIVISION.	PARTICULARS.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Direction	Bengal share, Gunduck drift operations.	...	5,818 15 10	5,818 15 10	5,818 15 10	...	
Working Plans	.....	...	...	...	...	...	
Darjeeling Division ...	Other minor produce, &c. ...	...	330 6 0	330 6 0	330 6 0	...	
Darjeeling Subdivision ...	Timber and other produce, &c.	...	81,584 1 6	81,584 1 6	(a) 81,299 6 0	272 3 6	(a) Rs. 12-8 deducted and written off.
Teesta ditto ...	Ditto ditto ...	...	18,675 8 4	18,675 8 4	18,645 0 4	30 8 0	
Kurseong ditto ...	Ditto ditto ...	345 8 0	18,837 14 0	19,183 6 0	(b) 18,903 6 0	...	(b) Rs. 220 deducted and written off on account of firewood tendered for, but delivery not taken.
Julpigori Division	... ...	...	...	...	...	...	
Julpigori Subdivision ...	Timber and other produce, &c.	...	24,635 0 6	24,635 0 6	24,635 0 6	...	
Buxa ditto ...	Ditto ditto ...	...	31,296 1 6	31,296 1 6	31,296 1 6	...	
Chota Nagpore Division ...	... .	...	...	...	...	...	
Palamow Subdivision ...	Timber and other produce, &c.	...	8,048 2 8	8,048 2 8	8,048 2 8	...	
Hazaribagh ditto ...	Ditto ditto ...	...	1,587 11 4	1,587 11 4	1,587 11 4	...	
Singbhoom ditto ...	Ditto ditto ...	...	10,239 4 7	10,239 4 7	9,668 4 7	571 0 0	
Sunderbuns Division ...	Ditto ditto ...	...	4,85,458 2 3	4,85,458 2 3	4,85,458 2 3	...	
Chittagong ditto ...	Ditto ditto ...	...	81,902 2 2	81,902 2 2	(c) 73,038 2 9	...	(c) Rs. 8,923-13-5 deducted, being payment made as Maharajah of Hill Tipperah's share of Fenny revenue collections during 1888-89.
Orissa ditto ...		...	9,928 13 3	9,928 13 3	9,928 13 3	...	
	Total ...	345 8 0	7,78,402 3 11	7,78,747 11 11	7,68,717 9 0	873 11 6	

DARJEELING,
The 16th July 1890.

A. L. HOME,
Conservator of Forests, Bengal.

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Outstandings and Liabilities on account of Contractors and Disbursers for 1889-90.

DIVISION.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Direction	.....	1,945 13 10	1,945 13 10	141 13 11	2,048 6 7	2,190 4 6	244 6 8	.....
Working Plans	.....	467 15 8	467 15 8	10 11 2	471 9 4	482 4 6	14 4 10	.....
Darjeeling	.....	261 1 6	261 1 6	15 12 7	280 1 6	295 14 1	34 12 7	.....
Darjeeling Sub	.....	28,402 8 8	28,402 8 8	640 15 5	29,588 10 2	30,229 9 7	1,827 0 11	.....
Teesta Sub	.....	13,492 7 11	13,492 7 11	269 5 1	13,438 7 4	13,707 12 5	215 4 6	.....
Kurseong Sub	.....	18,076 12 9	18,076 12 9	947 1 4	18,319 14 0	19,266 15 4	590 2 7	.....
Julpigori	.....	.....	.....	.....	.....	.....	.....	.....
Julpigori Sub	.....	11,046 7 0	11,046 7 0	390 3 4	11,213 4 8	11,603 8 0	557 1 0	.....
Buxa Sub	.....	26,174 1 2	26,174 1 2	444 4 6	27,860 11 3	28,304 15 9	2,130 14 7	.....
Chota Nagpore	.....	1,080 15 6	1,080 15 6	5 12 6	1,099 4 7	1,105 1 1	24 1 7	.....
Palamow Sub	0 1 3	10,085 4 1	10,085 5 4	129 8 0	10,070 0 6	10,199 8 6	114 3 2	.....
Hazaribagh Sub	.....	1,972 1 5	1,972 1 5	17 14 11	2,075 1 0	2,092 15 11	120 14 6	.....
Singhbhoom Sub	.....	18,440 13 4	18,440 13 4	2,943 3 4	16,495 1 4	19,438 4 8	997 7 4	.....
Sunderbuns	.....	84,716 5 7	84,716 5 7	1,873 0 2	84,409 8 4	86,282 14 6	1,566 8 11	.....
Chittagong	.....	25,151 6 7	25,151 6 7	1,213 0 5	25,710 15 11	26,924 0 4	1,772 9 9	.....
Orissa	.....	23,228 8 4	23,228 8 4	1,093 10 2	23,780 5 0	24,873 15 2	1,645 6 10	.....
Total ...	0 1 3	2,65,142 11 4	2,65,142 12 7	10,136 10 10	2,66,861 5 6	2,76,998 0 4	11,855 3 9	.....

CALCUTTA,
The June 1890.

J. BRIDGNELL,
Chief Superintendent, In charge, Forest Account Branch.

FORM No. 62.

FOREST DEPARTMENT, BENGAL.

Financial results of the year 1889-90.

DIVISION.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction	5,819	2,302	.....	.....	.....	5,819	2,302	Gunduck drift operations.
Working Plans	.....	.....	.....	.....	14,867	.....	14,867	
Darjeeling	54,680	48,958	64,558	27,076	41,003	1,19,232	1,17,937	Comprising the Darjeeling, Teesta, and Kurseong Subdivisions,
Julpigori	14,907	9,935	41,024	15,276	26,255	55,931	51,466	Comprising the Julpigori and Buxa Subdivisions.
Chota Nagpore	11,305	7,651	7,999	5,187	39,156	19,304	51,994	Comprising the Palamow, Hazaribagh, and Singbhoom Subdivisions.
Sunderbuns	97	.....	4,85,361	76,462	9,996	4,85,458	86,458	
Chittagong	458	614	72,581	15,060	18,834	73,039	35,108	
Orissa	510	1,265	9,419	9,919	18,949	9,929	30,133	Comprising the Angul and Khorda Subdivisions.
Total ...	87,776	70,725	6,80,942	1,50,480	1,69,060	7,68,718	3,90,265	

DARJEELING,
The 16th July 1890.

A. L. HOME,
Conservator of Forests, Bengal.

APPENDIX A.

FOREST DEPARTMENT, BENGAL.

Statement showing the approximate length of boundaries, and number of pillars or posts, in the Reserved Forests at the close of 1889-90.

Division or Subdivision.	Boundaries cleared and demarcated.				Natural uncleared boundaries.			Total for each division or subdivision.		Remarks.
					Along which posts or pillars are erected.		Along which posts or pillars are not necessary.			
	Chargeable to—			Posts or pillars.	Total length.	Posts or pillars.	Total length.	Length of all boundaries.	Posts or pillars.	
	A VII*a*.	A VIII*a*.	A VIII*e*.							
	Miles.	Miles.	Miles.	No.	Miles.	No.	Miles.	Miles.	No.	
Darjeeling Subdivision ... External	...	81·2	...	1,148	43·9	232	51·0	176·1	1,380	Demarcated by painted trees.
Darjeeling Subdivision ... Internal	...	50·8	...	...	...	...	.....	50·8	...	
Teesta ditto ... External	...	...	195·7	3,161	15·0	110	97·8	308·5	3,271	
Kurseong ditto ... do.	5·1	..	111·4	1,516	2·6	16	85·7	204·8	1,532	
Julpigori ditto ... do.	...	98·7	...	1,153	6·5	17	109·9	215·1	1,170	
Buxa ditto ... do.	...	103·5	...	1,281	...	...	157·4	260·9	1,281	
Buxa ditto ... Internal	...	6·2	...	...	...	...	.....	6·2	...	
Palamow ditto .. External	...	...	159·2	1,628	37·6	187	43·5	240·3	1,815	Corrected figures.
Palamow ditto .. Internal	...	7·6	...	...	...	...	.....	7·6	...	Corrected figures.
Hazaribagh ditto ... Proposed reserves.	...	8·9	...	124	...	...	.....	8·9	124	Figures approximate.
Hazaribagh ditto ... External	...	9·5	34·4	489	5·3	67	.....	49·2	556	Subdivisional Officer's report unreliable.
Hazaribagh ditto ... Internal	...	5·8	...	...	...	...	.....	5·8	...	Subdivisional Officer's report unreliable.
Singbhoom ditto .. External and Internal	...	606·7	37·3	10,255	41·2	233	116·3	861·5	10,488	Ditto, includes 28 masonry pillars and 251 slate posts.
Sunderbuns Division ... External	...	1·2	...	43	...	...	231·8	233·0	43	
Chittagong do. ... do.	...	50·1	...	3,403	...	...	441·5	497·6	3,403	Includes 260 standing trees on which boards are fixed.
Angul subdivision ... do.	...	...	219·1	4,018	...	...	7·8	226·9	4,018	
Khoorda ditto ... do.	...	...	244·1	3,480	·4	8	3·2	247·7	3,488	
Khoorda ditto ... Proposed reserves.	...	...	13·0	*	*	*	*	13·0	*	
Total ...	5·1	1,102·2	1,014·2	31,099	152·5	870	1,345·9	3,619·9	32,569	

* Not recorded by Divisional Officer.

APPENDIX B.

Statement showing the cubic contents of trees sold to permit-holders which were actually measured during 1889-90.

Division or Subdivision.	Trees.		Volume in Cubic Feet Wood.			
	Description.	Number.	Timber.	Fuel.	Total.	Average per tree.
Darjeeling Subdivision	No information	...	...	...	...	...
Teesta ditto						
Kurseong Subdivision	Buk	3	·343	159	502	167
	Phalat	3	325	141	466	155
	Katus	2	203	76	279	139
	Batrachi	5	490	341	831	166
	Goguldhup	2	197	224	421	210
	Sál	11	1,069	351	1,420	129
	Sáj	2	414	96	510	255
	Panisáj	2	502	132	634	317
	Lampatia	5	522	214	736	147
	Khammara	2	202	71	333	167
	Gobria	1	113	82	195	195
	Kawala	1	123	49	172	172
	Utis	1	60	35	95	95
	Baraulia	1	69	40	109	109
	Angarai	1	317	70	387	387
	Sissu	1	45	28	73	73
	Dabdabi	1	92	27	119	119
	Karam	2	324	87	411	205
	Chatiwan	1	227	52	279	279
	Semul	1	198	52	250	250
	Total ...	48	5,805	2,327	8,222	171
Julpigori Subdivision	Information unreliable	...	...	...	...	...
Buxa Subdivision	Dry sál poles	2,474	16,291	...	16,291	7
	Dry sál trees	4	206	...	206	51
	Dry sissu poles	3	32	...	32	11
	Dry sissu trees	32	1,234	...	1,234	39
	Total ...	2,513	17,763	...	17,763	7
Singbhoom Subdivision ...						
Sunderbuns Division	No information	...	...	...	...	...
Orissa ditto						

APPENDIX C.

FOREST DEPARTMENT, BENGAL.

Return of areas closed to grazing and grazed over during 1889-90.

Division or Subdivision.	Closed to animals.	Open to				Total area.	Remarks.
		Elephants, camels, buffaloes, goats, sheep or other cattle.		Cows, bulls, bullocks, and ponies.			
		Heavy grazing.	Light grazing.	Heavy grazing.	Light grazing.		
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
RESERVED FORESTS.							
Darjeeling Subdivision ...	14,847	41,254	...	...	9,432	65,533	Under Government rules and orders.
Teesta ditto ...	55,731	...	52,112	...	71,983	159,826	
Kurseong ditto ..	51,943	...	...	...	3,596	55,539	
Julpigori ditto ...	113,043	...	...	...	300	113,343	Practically no demand except for Buxa cantonment cattle.
Buxa ditto ...	168,047	1,200	...	...	...	169,247	
Palamow ditto ...	...	...	90,292	...	30,097	120,389	Restrictions not considered politic.
Hazaribagh ditto ...	30,465	...	200	...	200	30,865	To keep down grass on old village sites and assist fire-protection.
Singhbhoom ditto ...	...	...	311,577	...	155,773	467,350	Restrictions not considered politic
Sunderbuns Division ...	1,011,833	...	...	...	...	1,011,833	No grazing.
Chittagong ditto ...	886,740	...	...	...	...	886,740	Ditto.
Khorda Subdivision ...	52,390	4,814	2,740	...	200	60,144	Famine-stricken area.
Angul ditto ...	...	...	179,200	...	...	179,200	Restricted to non-fire season.
Total Reserved Forests ...	2,370,039	47,268	636,121	...	271,581	3,325,009	
PROTECTED FORESTS.							
Sunderbuns Division ...	1,223,222	...	...	...	...	1,223,222	No grazing.
Khorda Subdivision ...	...	209,868	...	...	...	209,868	Executive orders of Government.
Total Protected Forests ...	1,223,222	209,868	...	...	...	1,433,090	
UNCLASSED STATE FORESTS AND WASTE LANDS.							
Chittagong Division ...	2,581,420	...	...	...	...	2,581,420	No grazing.

APPENDIX D.

Services of Officers.

Mr. H. H. Davis, Deputy Conservator of Forests, 1st grade, on return from three months' privilege leave, was transferred from the Chota Nagpur to the Darjeeling Forest Division, of which he assumed charge on 20th August 1889. In addition to his other duties he was in charge also of the Kurseong subdivision from 29th September to 16th November 1889, and officiated as Conservator of Forests, Bengal, from 30th December 1889 to 29th March 1890. He has done excellent service as usual.

Mr. R. H. M. Ellis, Deputy Conservator, 2nd grade, continued to officiate in the 1st grade, and retained charge of the Sunderbuns Forest Division throughout the year. He has managed his Division in a very satisfactory manner, though his health has not been good.

Mr. G. A. Richardson, Deputy Conservator, 3rd grade, officiated in the 2nd grade from 11th May to 10th August, and from 30th December 1889 to 29th March 1890, and continued in charge of the Orissa Forest Division and Khorda subdivision to 22nd February 1890, when he proceeded on privilege leave for three months. The state of his health did not allow of his moving about on inspection duty as much as could be desired.

Mr. E. G. Chester, Deputy Conservator, 3rd grade, continued on deputation to the Andamans throughout the year.

Mr. F. B. Manson, Deputy Conservator, 3rd grade, assumed charge of the Working Plans Division on 1st May 1889, and remained in charge to the close of the year. He was also from the commencement of the year in charge of the Darjeeling Forest Division to 19th August, of the Darjeeling subdivision to 22nd April, and of the Teesta subdivision to 11th April; and was again in charge of the latter subdivision from 26th July to 5th December 1889. He has spent the greater part of his time on tour, but his own work has been considerably interfered with owing to the extra duties to which he has from time to time been posted.

Mr. W. M. Green, Deputy Conservator, 3rd grade, remained in charge of the Julpigori Forest Division and Buxa subdivision throughout the year, and has, as usual, done very good service. He is a painstaking and reliable officer.

Mr. A. R. Grant, Deputy Conservator, 4th grade, retired from the service on medical certificate with effect from 11th August 1889.

Mr. C. A. G. Lillingston, Deputy Conservator, 4th grade, officiated in the 3rd grade from 11th May to 10th August, and again from 30th December 1889. He assumed charge

of the Chota Nagpur Forest Division and of the Hazaribagh subdivision, on transfer from the Palamow subdivision, from 11th May 1889. The poor results of bamboo operations in Palamow and failure of fire protective measures in Singbhoom are not creditable to his management of the Division.

Mr. M. S. Fowler, Deputy Conservator, 4th grade, after making over charge of the Working Plans Division, proceeded on furlough for fifteen months from 10th May 1889.

Mr. R. L. Heinig, Assistant Conservator, 1st grade, has continued to officiate as Deputy Conservator, 4th grade, from 1st May 1889, and remained in charge of the Chittagong Forest Division throughout the year. He has done good service and managed his Division effectively.

Mr. C. G. Rogers, Assistant Conservator, 2nd grade, officiated in the 1st grade of Assistant Conservators from 1st May, and was confirmed in that grade from 11th August 1889. He also officiated in the 4th grade of Deputy Conservators from 11th May to 10th August, and from 30th December 1889, and assumed charge of the Darjeeling subdivision, on transfer from the Kurseong subdivision of the Darjeeling Forest Division, from 23rd April 1889. He has continued to maintain fully his reputation as a most energetic and hardworking officer, and never spares himself when there is hard work, however irksome, to be performed.

Mr. H. D. D. French, Assistant Conservator, 3rd grade, passed the examination in Forest Law in May and the examinations in Hindustani by the lower and higher standards, and in Land Revenue in November 1889. He was promoted to the 2nd grade of Assistant Conservators with effect from 11th November 1889, and to officiate in the 1st grade from the same date. Mr. French was in charge of the Kurseong subdivision, Darjeeling Forest Division, from 14th April to 29th September 1889, when he proceeded on one month's examination leave, and was transferred to the Singbhoom subdivision, Chota Nagpur Forest Division, of which he assumed charge from 14th November 1889. His work in Kurseong was not satisfactory. In his now charge he has failed entirely in the matter of fire protection, and the annual report he has submitted is very incomplete and most carelessly compiled.

Mr. H. H. Haines, Assistant Conservator, 3rd grade, passed the examination in Land Revenue "*with credit*," in Forest Law, and in Hindustani by the lower standard in November 1889, and was promoted to the 2nd grade from 11th of that month. He was attached to the Working Plans Division to 10th October, when he proceeded on one month's examination leave, and assumed charge of the Kurseong subdivision, Darjeeling Division, from 16th November 1889. He has worked well.

Mr. W. H. Lovegrove, Assistant Conservator, 3rd grade, appointed by the Secretary of State, joined the Department from 2nd January 1890, and was attached to the Direction Division. He gives promise of becoming a useful officer, and has since the close of the year been selected to succeed Mr. Rogers in the charge of the Darjeeling subdivision.

Mr. E. E. Wylly, Sub Assistant Conservator, 1st grade, was attached to the Sunderbuns Forest Division throughout the year, except from 9th April to 31st July 1889, when he was in charge of the Teesta subdivision, Darjeeling Division. The Conservator's appreciation of his services and extreme regret of his death, which occurred on the 5th June 1890, has been separately recorded.

Babu Sree Dhur Chuckerbutty, Sub-Assistant Conservator, 2nd grade, was in charge of the Julpigori Subdivision, Julpigori Forest Division, throughout the year, and has continued to work well as usual.

Mr. J. C. Mendes, Sub-Assistant Conservator, 3rd grade, on deputation to the Central Provinces, was posted on his return to the Palamow subdivision, Chota Nagpur Forest Division, of which he assumed charge from 21st March 1890. He has not been favourably reported on by the Conservator of Forests, Central Provinces.

Babu Shama Churn Chuckerbutty, Sub-Assistant Conservator, 3rd grade, continued to hold charge of the Angul subdivision, Orissa Forest Division, throughout the year, and is reported to have endeavoured to carry out orders more promptly than formerly.

Mr. E. E. Slane, Sub-Assistant Conservator, 3rd grade, passed the examination in Land Revenue "*with credit*" in May, and in Forest Law in November 1889 He was in charge of the Palamow subdivision Chota Nagpur Forest Division, from 11th May 1889 to 16th February 1890, and of the Khorda subdivision and of the office of the Orissa Forest Division from 22nd of that month. His management of work in the Palamow subdivision was not satisfactory.

Mr. R. Quinnell, Sub-Assistant Conservator, 3rd grade, passed the examination in Forest Law in November 1889. He was in charge of the Singbhoom subdivision, Chota Nagpur Forest Division, from 27th April to 14th November, and assumed charge of the Teesta subdivision, Darjeeling Forest Division, from 6th December 1889. Mr. Quinnell takes great care and interest in his work, and gives promise of becoming an excellent officer. The Teesta subdivisional annual report submitted by him is one of the best received this year as regards accuracy of detail and completeness.

Mr. E. J. N. James, Sub-Assistant Conservator, on probation, obtained the Ranger's certificate at Dehra-Dun Forest School on 2nd July 1889, having passed "*with honour*" in Mathematics and in Forest Law, and was appointed a Sub-Assistant Conservator, 3rd grade, from that date. He has continued to be attached to the Darjeeling subdivision, Darjeeling Forest Division, since he joined from the Forest School, and is reported to be careless in the performance of his duties and in carrying out orders.

W. LeB. & others—Reg. No. 1658J—380—4 8-90.

REVENUE DEPARTMENT.

FORESTS.

CALCUTTA, THE 23RD SEPTEMBER 1890.

RESOLUTION.

READ—

The Progress Report of the Forest Administration in Bengal for 1889-90.

MR. HOME has submitted a very full and complete report of the working of the Department during the year, for the greater part of which he was himself in charge of the office of Conservator of Forests. Mr. Davis officiated for the three months while the Conservator was on leave of absence.

Area.

2. The area of the Reserved forests is now reported to be 5,195 square miles, of Protected forests 2,239 square miles, of Unclassed State forests and Waste lands 4,034 square miles—in all 11,468 square miles, being $5\frac{1}{2}$ per cent. of the total area of province (193,198 square miles). The forests are confined to the districts bordering on the sea, the sub-Himalayan tracts, and the plateau of Central India, so far as it stretches into Chota Nagpore and Orissa. The rich districts of the interior of Bengal are, most unfortunately, altogether without public forests, and are consequently supplied in a very deficient degree with fuel. An area of 207 square miles was added to the Reserves during the year, and an area of 25 square miles of Protected forests in the Sunderbuns was farmed out for reclamation. Much work is being done in completing the title of Government to existing Reserves by going through the legal formalities prescribed by the Act as a necessary preliminary to the constitution of a forest—formalities which were often overlooked in the first instance. The enquiries incidental to these proceedings will also secure the record and protection of private easements, and in some instances may lead to a more judicious alignment of forest boundaries, which should always be fixed with reference, among other considerations, to the convenience of the neighbouring cultivators. The Lieutenant-Governor notices with satisfaction that the average cost per mile of deliminating boundaries has been reduced from Rs. 16 to Rs. 7-3.

Legal proceedings.

3. During this year there have not been so many criminal charges against officers of the Department, and in only one case brought to trial has the prosecution proved abortive. Three forest guards on the Kassalong Range in Chittagong were murdered by a gang of Chakmas, who made away with over Rs. 2,000. All the gang, except the ringleader, have been captured, and it is hoped that he also will soon be in the hands of justice. Owing to the large number of cases compounded, only 120 prosecutions were instituted as against 254 in 1888-89, while the percentage of convictions remains practically the same, viz., 79·6 per cent. Considering the remarks recorded on the subject last year by the Government of India, an explanation should have been given of the small proportion of successful proceedings. The number of cases compounded has increased from 1,450 to 2,524. These came chiefly from the Darjeeling and Sunderbuns Divisions, where the delay and other inconveniences which attend an appeal to the courts have led Forest officers to prefer compounding.

Fires.

4. The result of the special measures taken to protect a portion of the forests against fire were successful—95 per cent. of the areas thus dealt with having escaped, in spite of the dryness of the season, against 72·9 per cent. in the previous year. On the other hand, there was a failure in the area not specially protected, but on which some attempt was made at preservation. In illustration of the advantages of protection reference may be made to Mr. Home's statement in regard to Buxa, that the savannahs are in many places fast clothing themselves with tree growths, thanks to consecutive years of exemption

from fires. Similar improvement is observed in the savannahs of the Kaidak sāl tract, but it is not so marked in those of the Bholka forest. The area of regular plantations was extended by 116 acres, and that of cultural operations by 18 acres. The cost, including maintenance of former areas, is Rs. 6,604, as compared with Rs. 6,837 last year.

Outturn.

5. The outturn of wood, including timber and fuel, during the year was 29,973,004 cubic feet against 27,793,504 cubic feet in the previous year. The demand for charcoal at Darjeeling almost trebled during the year and there was a large increase in the demand for timber from the Sunderbuns Division. A notable change was introduced in the Darjeeling Division, where, in spite of the extra work entailed, all growing trees are now marked for felling by gazetted officers. The Lieutenant-Governor is not, however, disposed to think that, apart from some very special local reasons, such a change is desirable. Financial considerations alone would prevent the employment of a gazetted officer for the selection of each tree to be cut; the object of members of the controlling staff should be not to do everything themselves, but to train their subordinates to take an intelligent share in the work.

Financial results

6. The accounts appended to the report, dealing as they do with the smaller areas only, fail to give a clear idea of the profit and loss in each Division, for which purpose the following table may be found of use:—

Financial results in Forest Divisions for the years 1888-89 *and* 1889-90 *as shown in Form No.* 58.

1888-89.

Division	Receipts	Expenditure	Profits	Loss	Remarks
	Rs A P	Rs A P	Rs A P	Rs A P	
Direction	3,154 5 5	31,501 13 10	....	28,347 8 5	
Working Plans		5,158 7 4		5,158 7 4	
Darjeeling	1,06 274 9 2	96,028 0 9	9 246 8 5	.	Comprising the Darjeeling, Teesta and Kurseong sub divisions
Julpigoree	27,248 3 10	38,527 7 4		11 279 3 6	Comprising the Julpigoree and Buxa sub divisions
Chota Nagpore	16,811 15 2	55,604 8 7		38,792 9 5	Comprising the Palamow, Hazaribagh, and Sing bhoom sub divisions
Sunderbuns	4,36,275 15 7	80,111 0 2	3,56,161 15 5		
Chittagong	74,905 1 6	30,980 6 2	43,924 11 4	...	
Orissa	13,236 5 10	30,254 0 0		17,017 10 2	Comprising the Angul and Khoorda sub divisions.
Total for 1888 89	6,76,906 8 6	3,68,168 12 2	4,09,333 3 2	1,00,595 6 10	Surplus = Rs 3,08,737 12-4

1889-90.

	Rs A P	Rs A P	Rs A P	Rs A P	
Direction	5,818 15 10	30,876 0 1		25,057 0 3	
Working Plans		13,135 2 8		13,135 2 8	
Darjeeling	1,19,238 2 4	1,14,472 5 1	4,765 13 3	.	Comprising the Darjeeling, Teesta, and Kurseong sub divisions.
Julpigoree	55,931 2 0	46,270 1 11	9,661 0 1	. .	Comprising the Julpigoree and Buxa sub divisions.
Chota Nagpore	19,304 2 7	46,801 11 5		27,497 8 10	Comprising the Palamow, Hazaribagh, and Sing bhoom sub divisions.
Sunderbuns	4,85,458 2 3	78,663 15 10	4,06,794 2 5		
Chittagong	73,038 2 9	32,509 12 8	40,528 6 1		
Orissa	9,928 13 3	27,535 7 11	.	17,606 10 8	Comprising the Angul and Khoorda sub-divisions
Total for 1889-90	7,68,717 9 0	3,90,264 9 7	4,61,749 5 10	83,296 6 5	Surplus = Rs 3,78,452-15-5.

It will be seen that there is a large and increasing surplus, so that the general result is satisfactory. The profit is very great in the Sunderbuns Division, from which Calcutta is supplied with fuel, as are also the important sugar and other works scattered through Khulna and Jessore. The Lieutenant-Governor has always encouraged the Department to strengthen establishments as much as possible in this Division, and to make free use of steam-launches for inspection, it being generally believed that the revenue here is capable of much greater expansion. It is also desirable to free more

officers for making working plans, a duty too generally neglected, and this can only be accomplished by reducing establishments where they do not pay, namely, in Chota Nagpore and Orissa. In the latter province work will probably be considerably reduced when the forest boundaries have been re-aligned by the exclusion of village grazing and fuel grounds, a measure to which the Lieutenant-Governor attaches great importance in the interests of the cultivators.

Mr. Home has devoted great care and attention during the year to the administration of the Department.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

Secretary to the Govt. of Bengal.

No. 3401—623For.

COPY, with copy of the report, submitted to the Secretary to the Government of India, Revenue and Agricultural Department, for information.

No. 3402—624For.

COPY, with copy of the report, forwarded to the Conservator of Forests, Bengal, for information and guidance.

By order of the Lieutenant-Governor of Bengal,

T. W. RICHARDSON,

Offg. Under-Secy. to the Govt. of Bengal.

CALCUTTA,
REV. DEPT.—*Forests*,
The 23rd September 1890

T. B. C.—Reg. No. 6778C—493—2-10-90.

No. 965-F.

FROM

SIR E. C. BUCK,
Secretary to the Government of India,

TO

THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE (FORESTS) DEPARTMENT.

Rev. & Agrl. Dept.
Forests.

Calcutta, the 24th November 1890.

SIR,

I AM directed to acknowledge the receipt of Mr. Richardson's endorsement No. 3401—623 (Forests), dated the 23rd September last, forwarding the Progress Report of Forest Administration in Bengal for the year 1889-90, together with His Honour the Lieutenant-Governor's Resolution thereon. The Report, although due on the 1st September, was received only on the 7th October, and I am to ask that arrangements may be made to ensure its more punctual submission in future, in order that the Report may be dealt with before the Government of India leave Simla.

2. At the close of the year under review, the area of forests subject to the control of the Department was as follows:—

Class of Forests.	At commencement of year.	Added.	Excluded.	At close of year.	Proportion of Forests to whole area of Province (150,689 square miles).
	Square miles.	Square miles.	Square miles.	Square miles.	Per cent.*
Reserved	4,988	207	...	5,195	3
Protected	2,264	...	25	2,239	2
Unclassed	4,033	...†	...	4,033	3
TOTAL ...	11,285	207	25	11,467	8

* The percentage of Forests is based on the area of the Province of Bengal as entered in the Administration Report of 1888-89, *viz.*, 150,689 square miles. This does not agree with the area stated in His Honour's present Resolution.

† Certain forests in the Singbhum District were made over for management by the Department, but their area is not known.

The Reserved area was increased during the year by 207 square miles, while 25 square miles of Protected Forests in the Sundarbans were given up for cultivation.

It is doubtful whether the action taken in re-gazetting as proposed Reserves under section 4 of the Indian Forest Act, areas already declared Reserved under section 34 of that Act, as well as tracts subsequently declared Reserves under section 19, was necessary or required by the law. The question will, however, be made the subject of separate correspondence.

The Conservator's account of the demarcation work of the year is complete and in every way satisfactory.

3. A party of the Survey of India was employed during the year on the survey of the Jalpaiguri forests, and the mapping of the Singbhum forests by the Imperial Forest Survey Branch was in progress. The record of petty surveys executed by the Forest Department, and costing 2 or 3 rupees only, is unnecessary.

4. The progress made in the preparation of Working-Plans was again limited, owing to the Division specially designed for the execution of this work remaining in abeyance for the greater part of the year. The Working-Plan for the Darjeeling forests, which has been under preparation or revision for several years, should be completed without further delay. The necessity for the Plan has apparently become the more urgent now that the period for which Dr. Schlich's system of supplying Darjeeling and Jalapahar with timber and fuel was to remain in force has expired. The Sukna Working-Plan also, judging from the Conservator's remarks calls for revision, and that in force for the Bamonpokri forest does not seem to be so adjusted as to meet the requirements of the market. In this connection, the Government of India desire to invite His Honour the Lieutenant-Governor's further attention to paragraph 3 of my letter No. 172-F., dated 8th March 1890, reviewing the Progress Report for 1888-89, and at the same time to express their approbation of the proposed development of this branch of the Administration, which, the Bengal Government allow, has hitherto been too generally neglected.

The remarks made in paragraph 5 of His Honour the Lieutenant-Governor's Resolution, in regard to the change of system by which all trees for felling are marked in the Darjeeling Division by gazetted officers, are fully concurred in by the Government of India, who consider that the duties of these officers should be restricted to the supervision of such operations, and that, as a rule, they can be more profitably employed in the manner indicated in the paragraph of last year's review above quoted. Until the method of treatment of a forest has been determined and prescribed in a Working-Plan, the Government of India are advised that the selection and marking of trees is of secondary importance.

5. Eleven miles of export roads and 50 miles of inspection paths were opened out, while repairs to existing roads and paths were attended to. New buildings cost Rs. 7,500 and Rs. 6,443 were expended on repairs.

6. The number of forest offences, both prosecuted and compounded, compare with those of the previous year as follows:—

Year.	New cases taken into Court.	Cases compounded.	Total cases.	Proportion of Convictions to total number of cases decided by the Courts.
	No.	No.	No.	Per cent.
1889-90	120	2,524	2,644	89
1888-89	254	1,450	1,704	80
Increase or decrease in 1889-90.	—134	+1,074	+940	...

The percentage of convictions obtained remains lower than in other Provinces. The number of cases compounded has increased, in a remarkable manner in the Sundarbans Division, and if the increase as stated by the Conservator, is due merely to improved supervision, it shows conclusively that closer inspection was called for, and indicates that the use of a third steam launch, the purchase of which has been recently sanctioned, will tend to an expansion of the revenue from that Division.

7. The results of fire-protection are exhibited in the following statement :—

Year.	Area, in square miles.			Proportion of Failures to area attempted.	Cost.		Proportion of area under Fire-conservancy to total area of Reserves.
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
				Per cent.	Rs.	Pies.	Per cent.
1889-90	1,217	58	1,159	5	13	4	23
1888-89	1,772*	484†	1,288‡	27	13	4	35
Decrease in 1889-90 ...	555	426	129	22	...	...	12

* Includes 20,480 acres (32 square miles) of *proposed* Reserves.
† „ 640 „ (1 „ „) „ „ „
‡ „ 19,840 „ (31 „ „) „ „ „

These better results are, however, more apparent than real, because the 555 square miles of forests in the Singbhum Division, the protection of which failed over four-fifths of the area in 1888-89, was not attempted in 1889-90, and the area has consequently been omitted from the returns. These tracts, which appear to have been unprotected in consequence of a disregard of orders, were, as might have been expected, almost completely traversed by fires.

8. The statement given in Appendix C of the Report furnishes more detailed information than has hitherto been recorded in regard to grazing in the Government Forests. I am to observe that, while 41,254 acres are shown in the Darjeeling Division as open to heavy grazing by all animals, including elephants, camels, and goats, it would appear from paragraph 54 of the Report that only horned cattle and sheep actually graze over them. Moreover, it is gathered from the Report that, with the exception of an insignificant number of goats in the Teesta Sub-Division and elephants in Buxa, browsing animals are not admitted into the forests of Bengal. If this is the case, only 74 square miles, of the 5,195 square miles of Reserves, are open to what the Conservator describes as heavy grazing, and 1,418 square miles to light grazing. The total receipts from pasture and fodder grass amounted to Rs. 11,079 only, nearly half of which was collected in the Darjeeling Division.

9. The remarks recorded on natural reproduction in the Darjeeling, Jalpaiguri, and Chittagong Divisions are indicative of careful observation. The opening of the Reserves in the Orissa Division to free grazing—a course which has to be taken in times of scarcity—has resulted in injury to, and the destruction of, *sál* seedlings. The damage done will, it is hoped, be repaired within a reasonable time.

The Regular Plantations were extended by 116 acres, comprising mainly additions to the Dooteria plantation in Darjeeling, the Sitapahar plantation in Chittagong, and the Barunai Hill plantation in Khorda. Cultural operations were limited to some broad-cast sowings of *sál* and *Macaranga denticulata* over 14 acres in the Jálpaiguri Division, and the treatment of a few acres in Khorda.

The Government of India observe with satisfaction that the work of cutting creepers has been steadily carried on in recent years.

10. The outturn compared with that of the previous year was :—

Class of Forests.	Timber.	Fuel.	Bamboos.	Minor Produce.
	Cub. ft.	Cub. ft.	No.	Rs.
Reserved.				
By Government agency ...	25,291	418,948	615,747	1,472
By Purchasers	9,506,934	11,056,500	4,850,213	75,717
Free Grants	16,130	1,002,149	21,140	3,065
TOTAL ...	9,548,355	12,477,597	5,487,100	80,254
Protected.				
By Government agency ...	388	...	...	...
By Purchasers	248,615	3,289,451	217,285	11,050
Free Grants	2,069	3,500,000	3,302,000	1,50,708
TOTAL ...	251,072	6,789,451	3,519,285	1,61,758
Unclassed.				
By Government agency ...	18,494	19,423	3,960	52
By Purchasers	417,347	447,725	10,211,142	9,387
Free Grants	3,540	...	3,000	8
TOTAL ...	439,381	467,148	10,218,102	9,447
Grand Total in 1889-90 ...	10,238,808	19,734,196	19,224,487	2,51,459
„ „ 1888-89 ...	9,096,385	18,697,119	19,417,549	2,81,946
Increase or decrease in 1889-90	+1,142,423	+1,037,077	—193,062	—30,487

The removal of timber and bamboos by Government agency was less and that of fuel was greater than in the preceding year, while purchasers removed considerably more timber, fuel, bamboos, and other produce than in 1888-89. Free grants aggregating 4,523,888 cubic feet of timber and fuel, 3,326,140 bamboos, and Rs. 51,656 worth of other produce were given away. The total estimated value of these concessions was Rs. 76,413, of which all but a fractional part went to relieve distressed ryots and others in Orissa.

11. The financial results of the year's working exhibit both the highest gross and net revenue yet attained in Bengal and compare with those of the previous year as follows :—

Year.	Receipts.	Charges.	Surplus.	Proportion of Surplus to gross Revenue.
	Rs.	Rs.	Rs.	Per cent.
1889-90	7,68,718	3,90,265	3,78,453	49
1888-89	6,76,907	3,68,169	3,08,738	46
Increase in 1889-90	91,811	22,096	69,715	3

The steadily increasing surplus of the past five years indicates careful administration. Satisfactory features of the year's management are observed in the increased receipts from the Sundarbans, in the profitable working of the Jalpaiguri Division, and in the reduction of the deficit in the Chota Nagpore Division. In Orissa, the prevailing scarcity necessitated continued relaxation of rules and concessions being made for the relief of the people.

12. Experiments with exotics call for little notice. The mahogany plantation in the Chittagong Division is doing well. Ceara rubber trees, with two exceptions, have not succeeded.

13. The satisfactory administration of the Department during the year has been chiefly due to Mr. Home's care and attention, which the Government of India are glad to notice have earned His Honour's acknowledgment.

I have the honour to be,

Sir,

Your most obedient Servant,

E. C. BUCK.

Secretary to the Government of India.

Appendix showing the discrepancies noticed in the Bengal Forest Administration Report for 1889-90.

FORM NO. 55.

(*Outturn of Minor Forest Produce.*)

In the 'Abstract' of this Form, the value of fodder removed by purchasers from Reserved Forests is shown as Rs. 2,397, whereas it should be Rs. 2,401, raising the total of the column in which the entry appears from Rs. 67,202 to Rs. 67,206, and the grand total from Rs. 87,468 to Rs. 87,472.